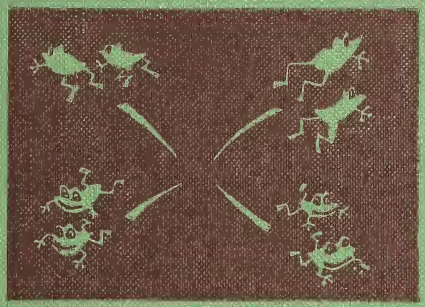

CURRICULUM

Seeing through arithmetic

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Seeing through arithmetic 2

by Maurice L. Hartung, Henry Van Engen, E. Glenadine Gibb,

James E. Stochl, Lois Knowles, and A. B. Evenson

W. J. Gage Limited

Toronto

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This is the second book of The Basic Mathematics Program, which is a unit of THE CURRICULUM FOUNDATION SERIES, published by Scott, Foresman and Company, and edited for use in Canadian schools by W. J. Gage Limited

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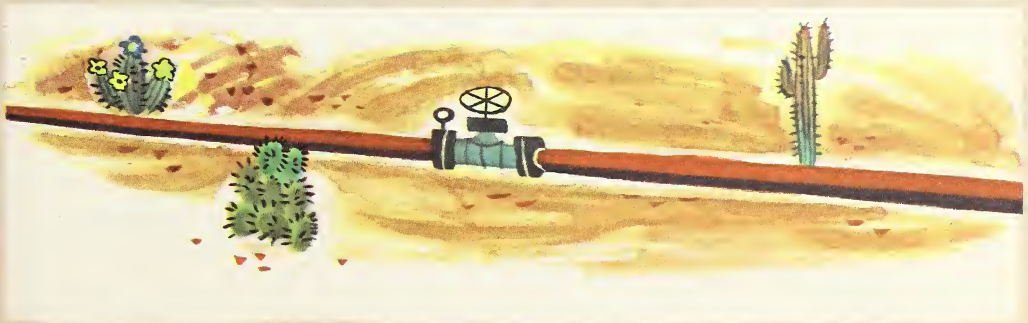
Note in this position on each page describes the mathematical content of the lesson. See page 216 for a complete index of the mathematical ideas presented in this book.



GEOMETRY
Curves; lines; betweenness for curves

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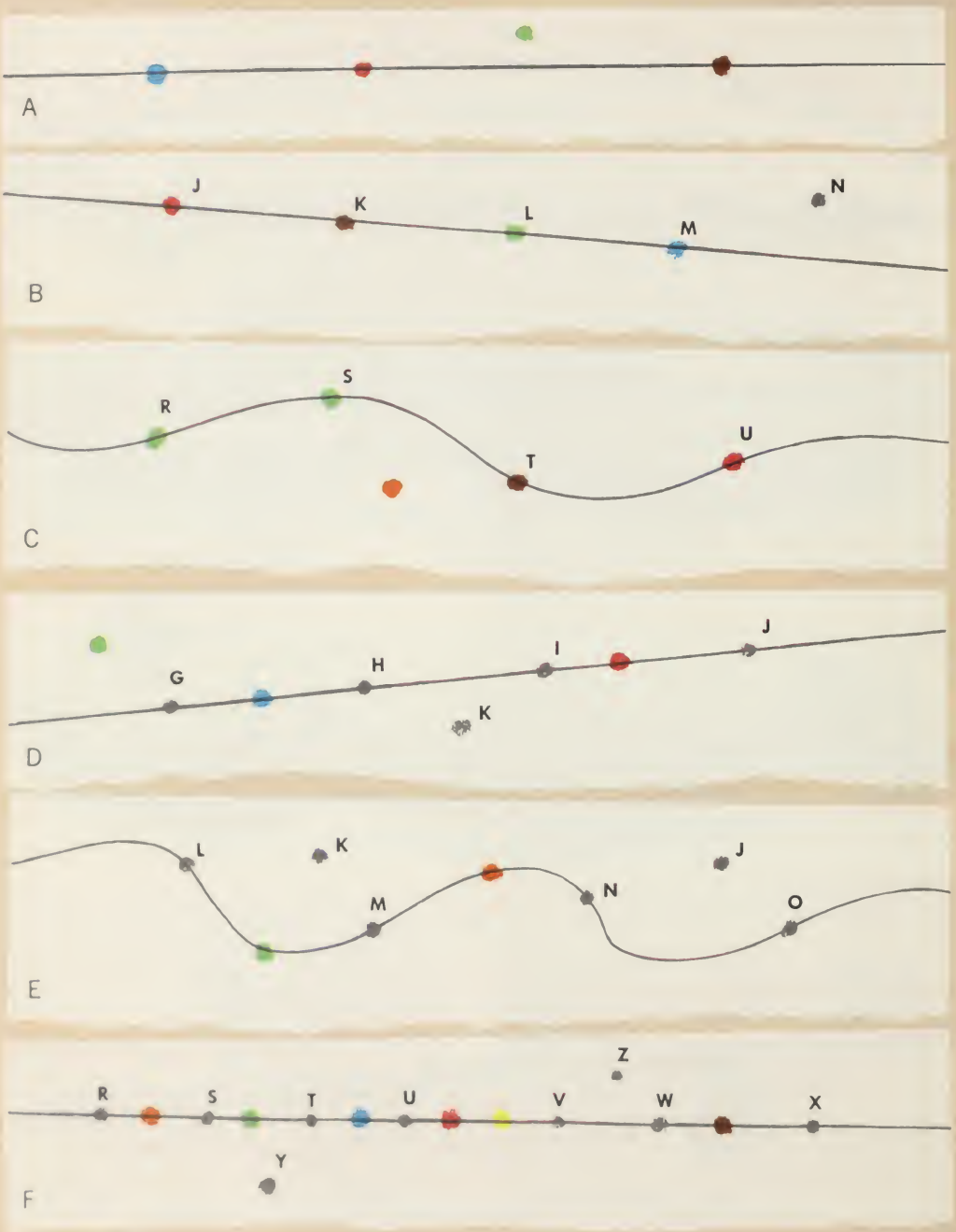
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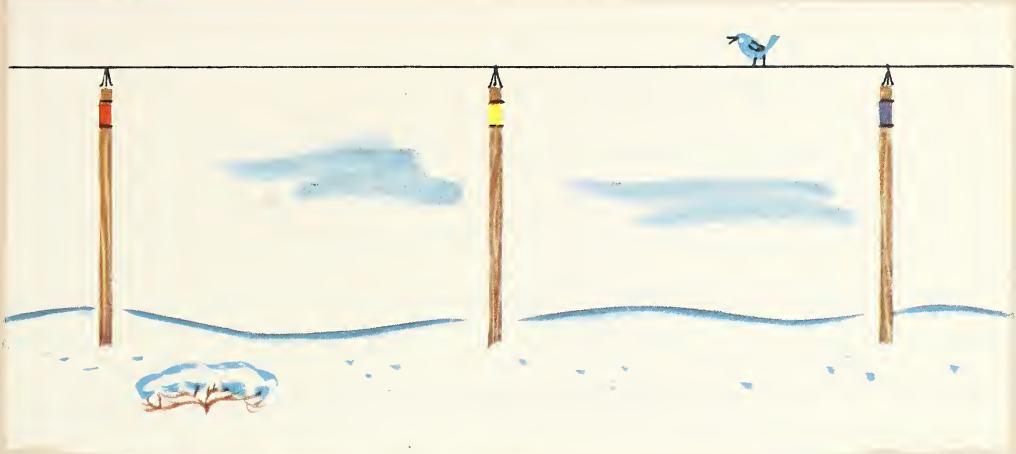

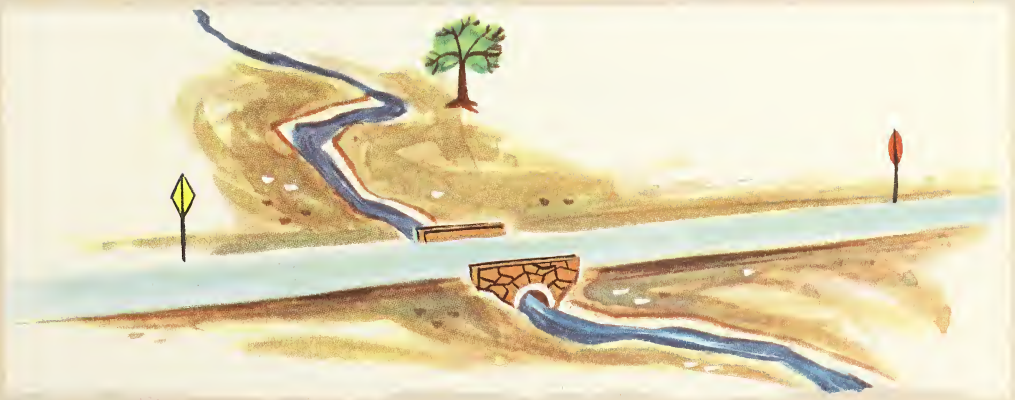

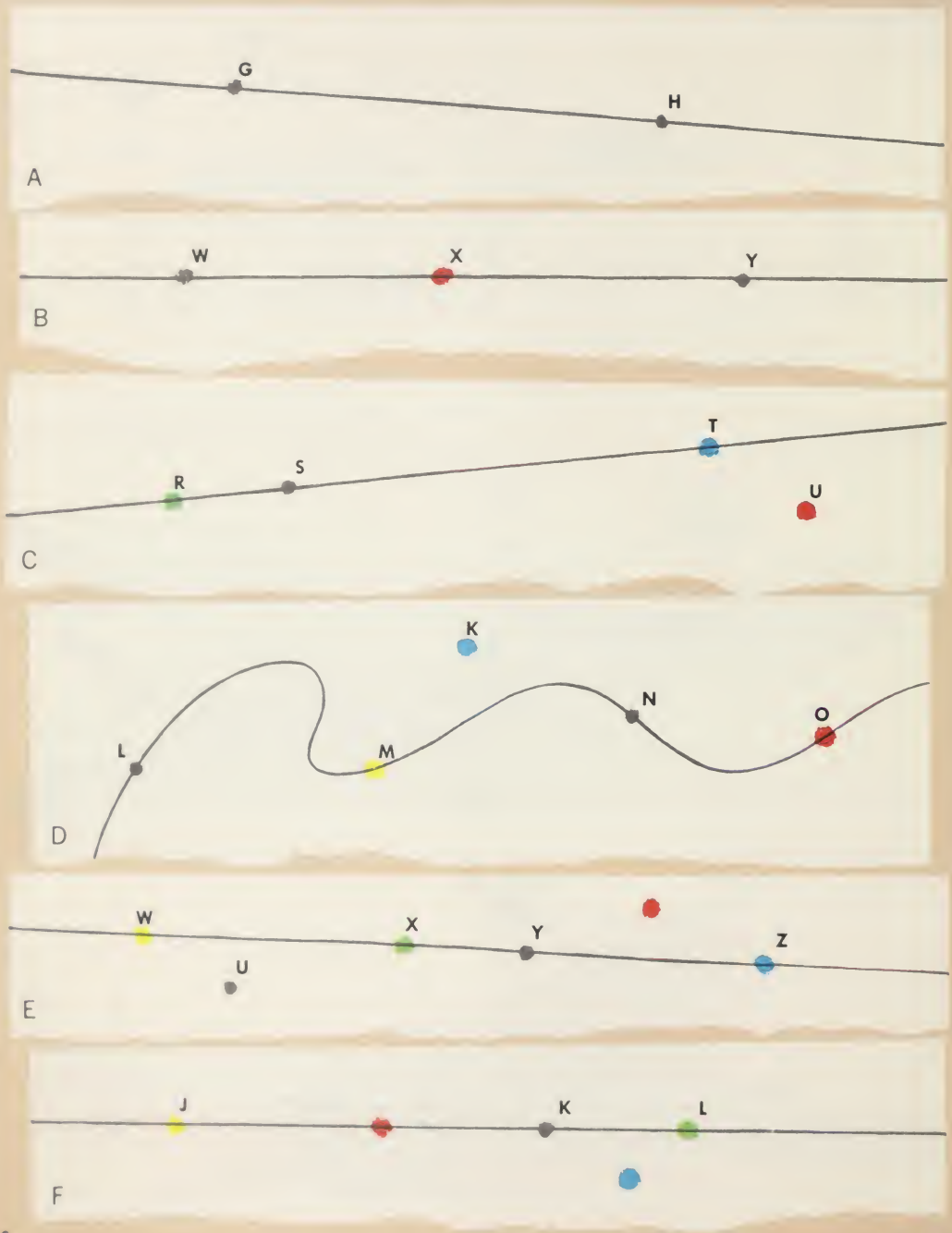
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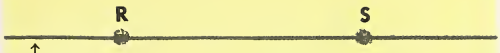

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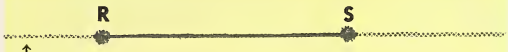

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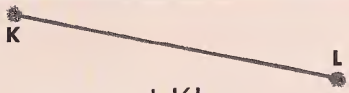

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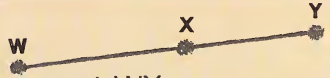

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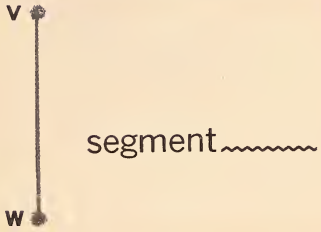

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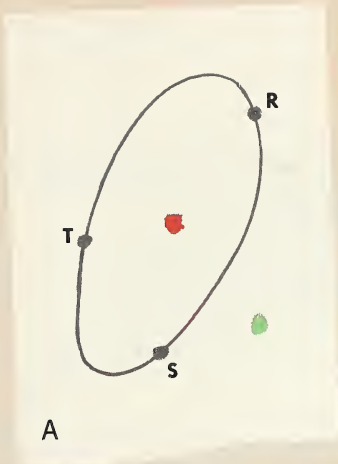
GEOMETRY

Open and closed curves; interior and exterior of curves; betweenness for curves (reteaching)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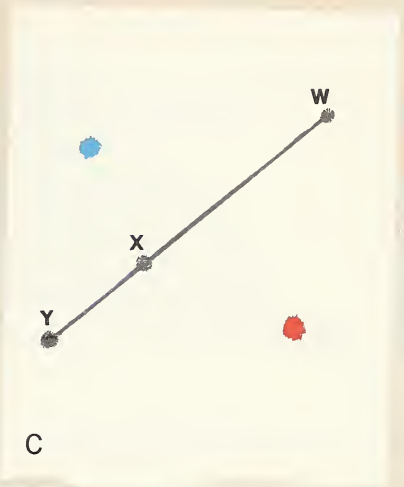
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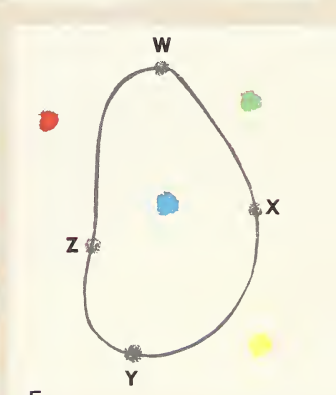
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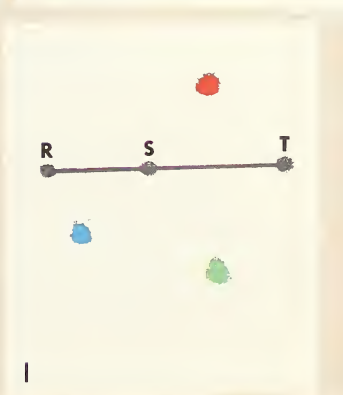
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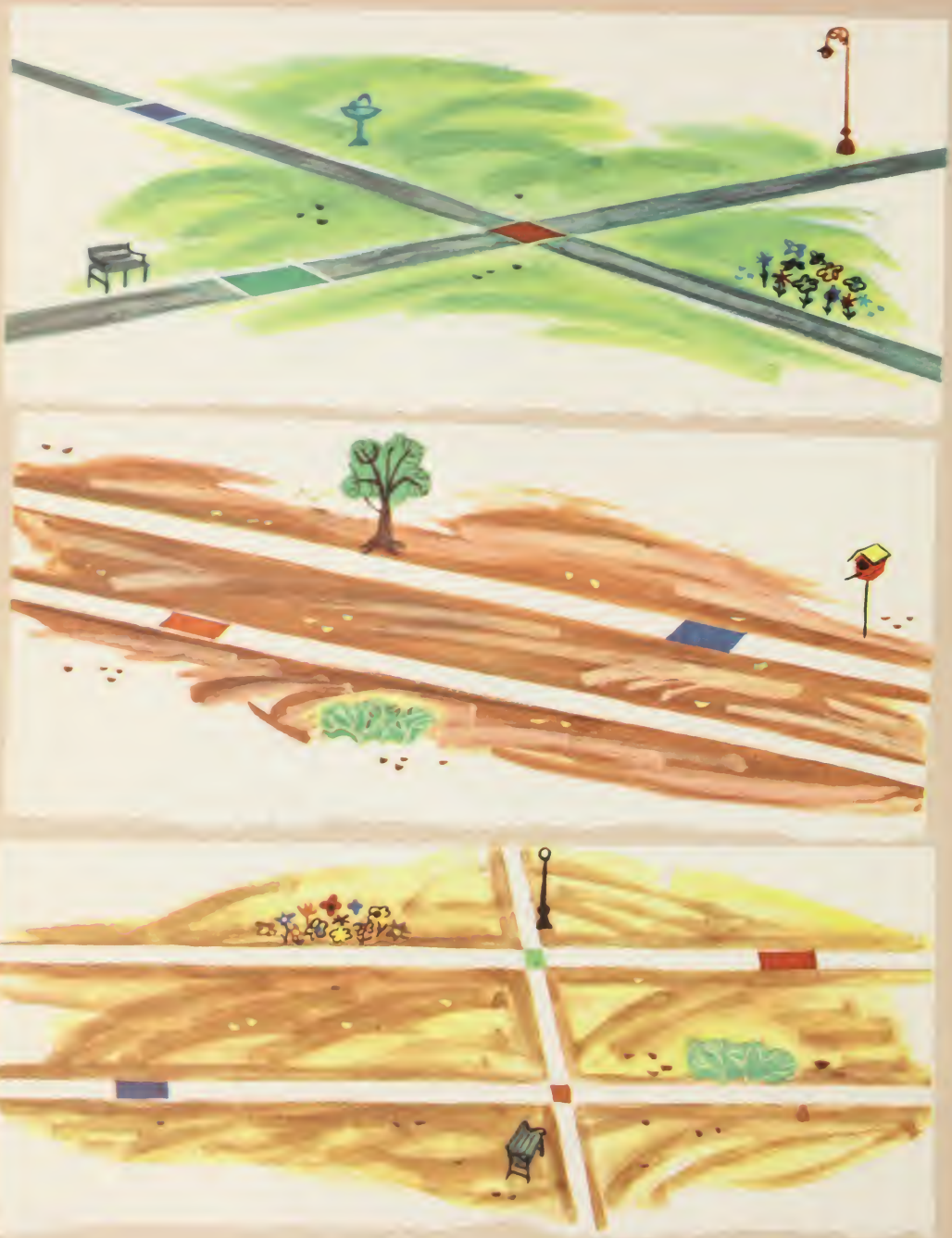
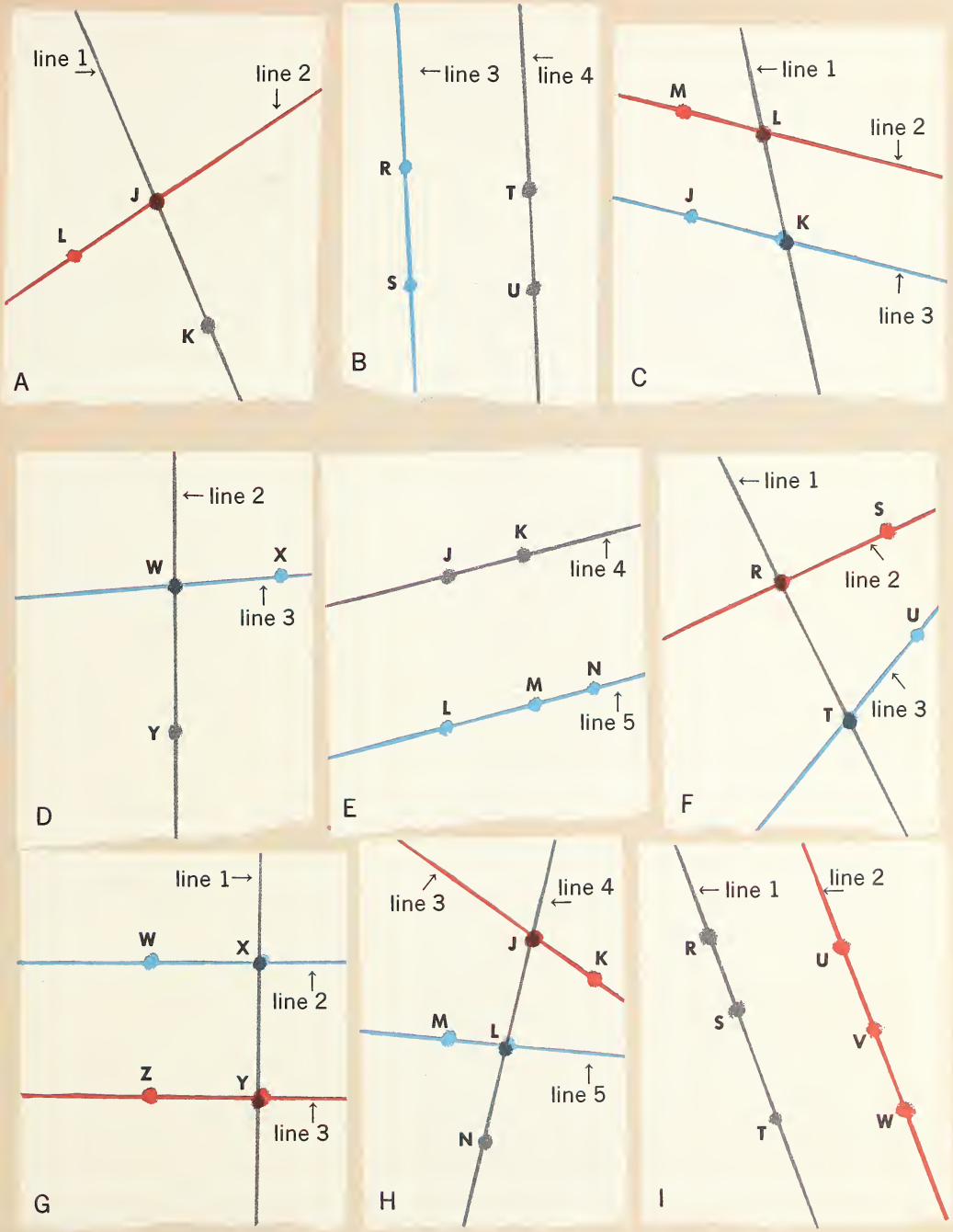


GEOMETRY
Intersecting lines; parallel lines; points of intersection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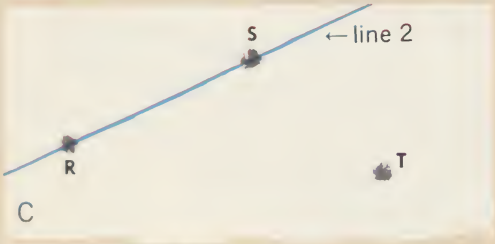
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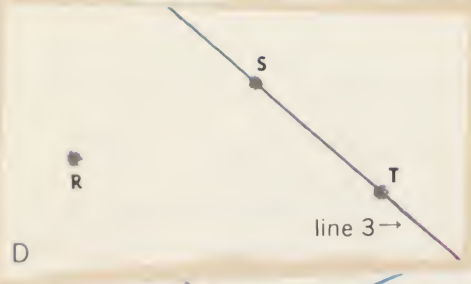
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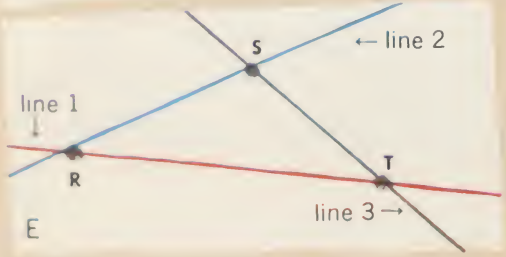
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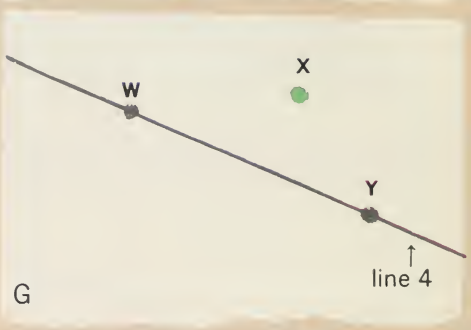
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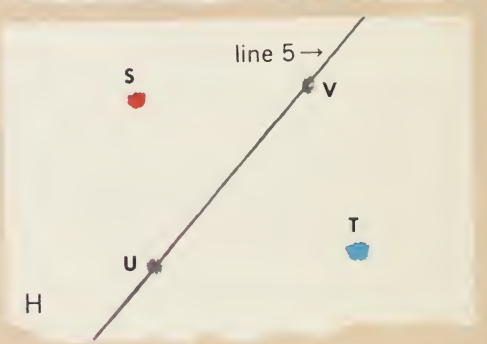
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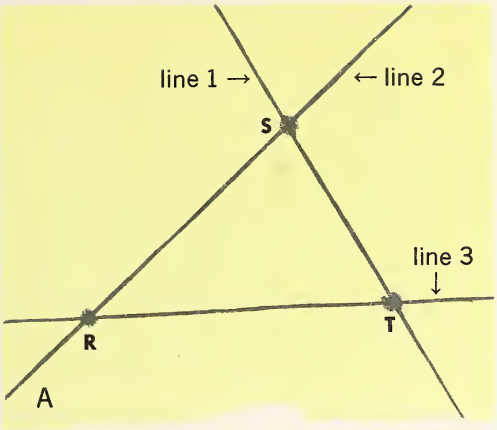
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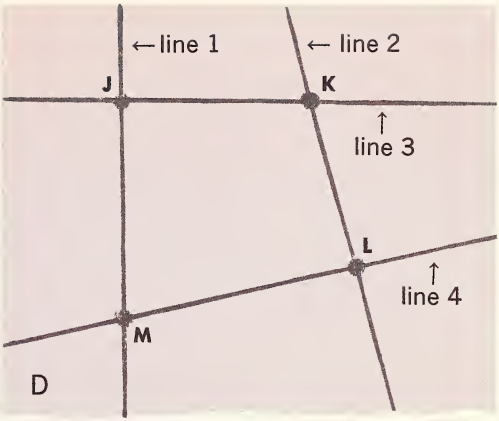
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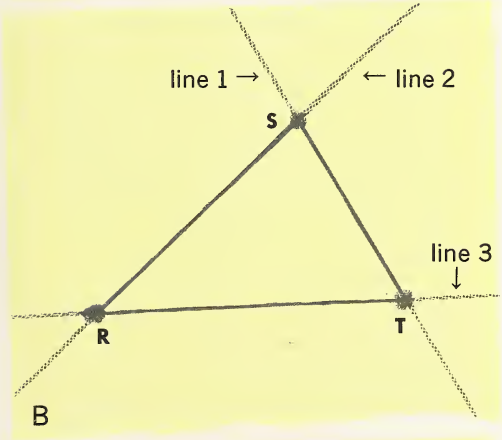
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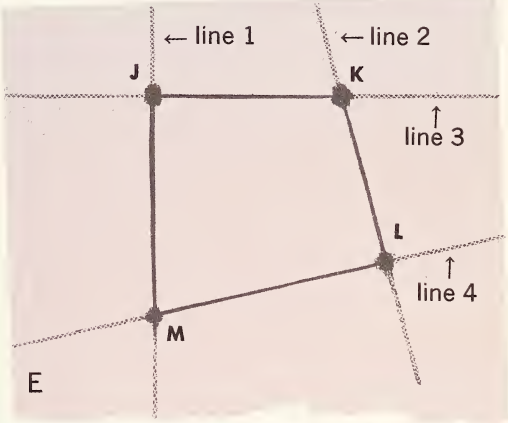
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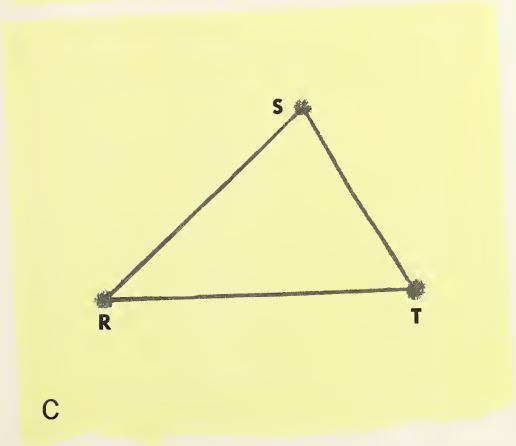
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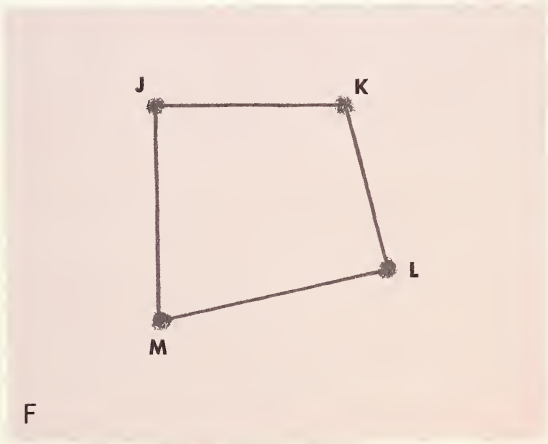
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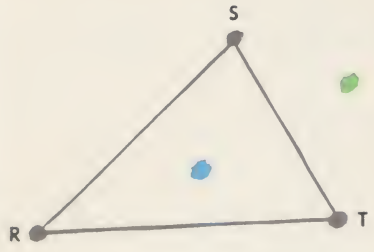

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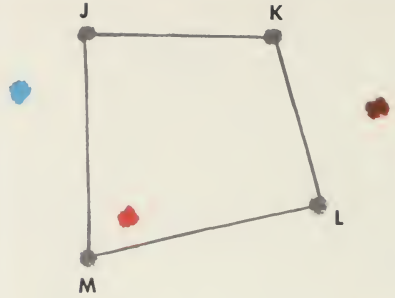

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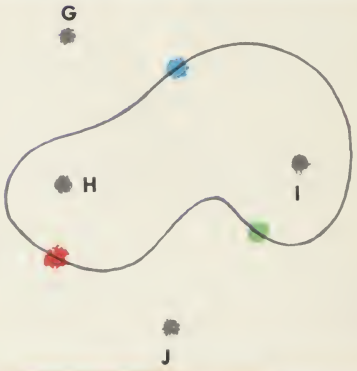

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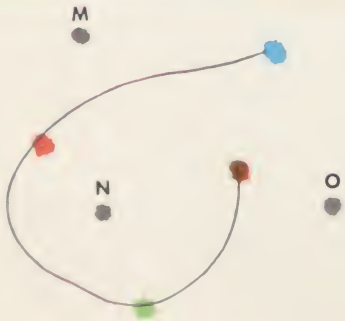

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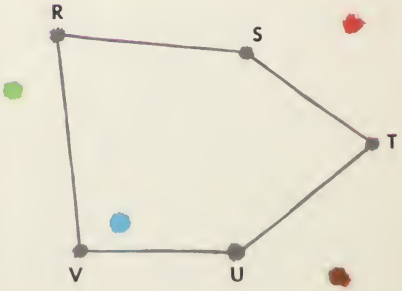

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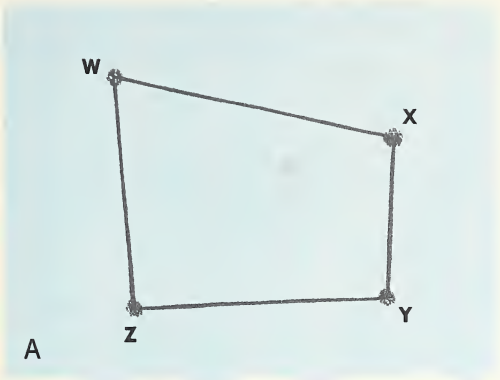
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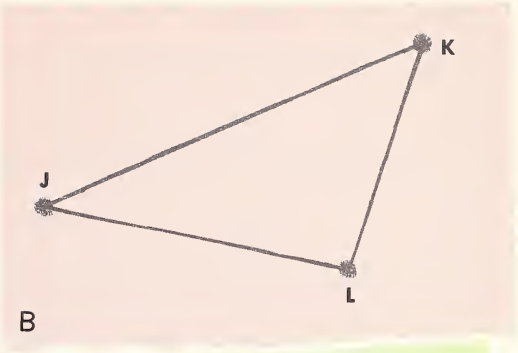
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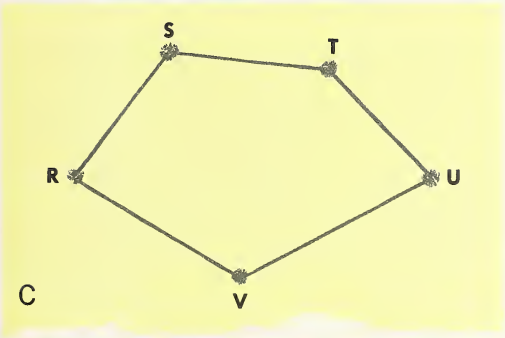
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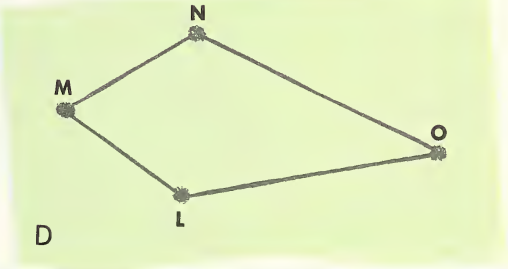
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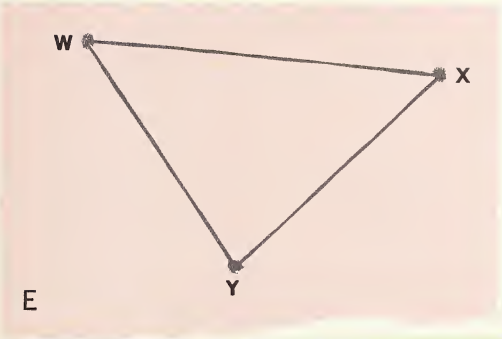
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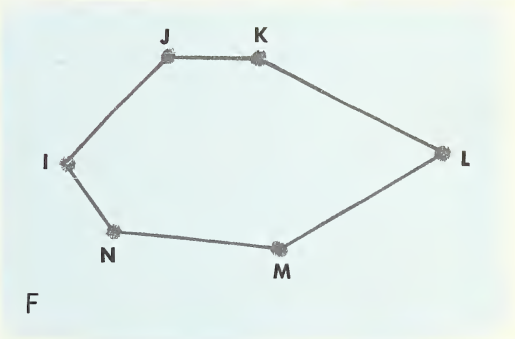
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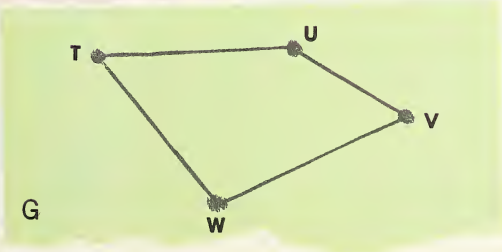
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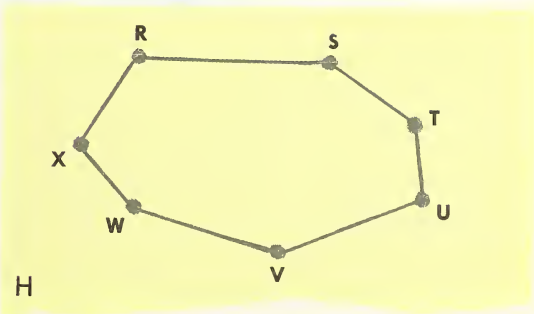
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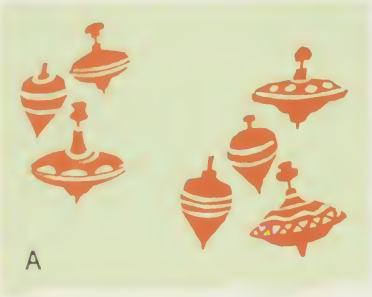
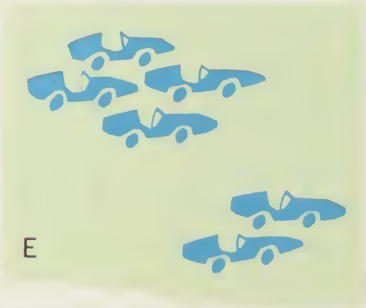

A

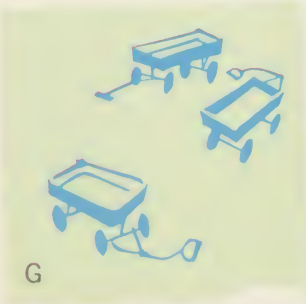
B

C

D


E

F


G

H

I

six	seven	eight	nine	ten
6	7	8	9	10
6	7	8	9	10

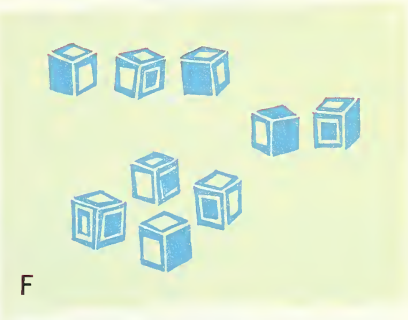
A

B

C

D

E


F

G

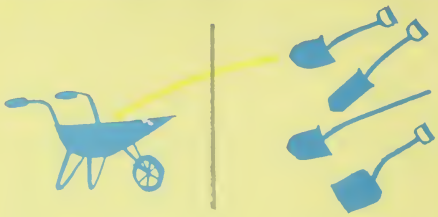
H

I

5 is greater than 3.

3 is less than 5.

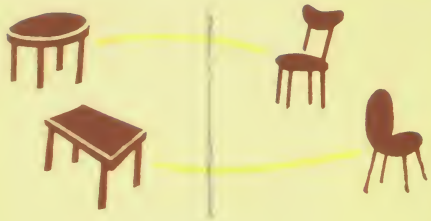
A



1 is less than 4.

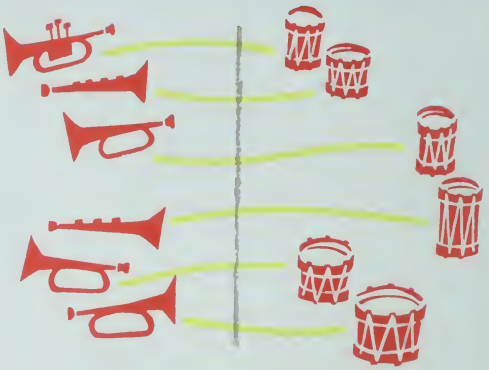
4 is greater than 1.

B



2 is equal to 2.

C



6 is equal to 6.

D

■ is less than ●.

■ is greater than ●.

E

■ is greater than ●.

■ is less than ●.

F

▬ is greater than ●.

▬ is less than ●.

A

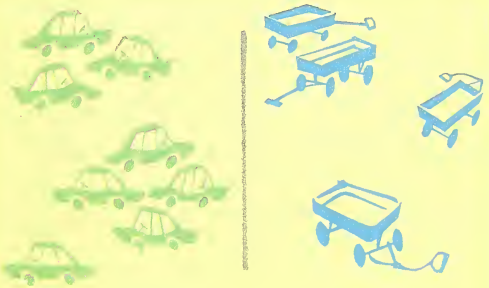
▬ is equal to ●.

B

5 _____ 10.

10 _____ 5.

C



8 _____ 4.

4 _____ 8.

D

9 _____ 9.

E

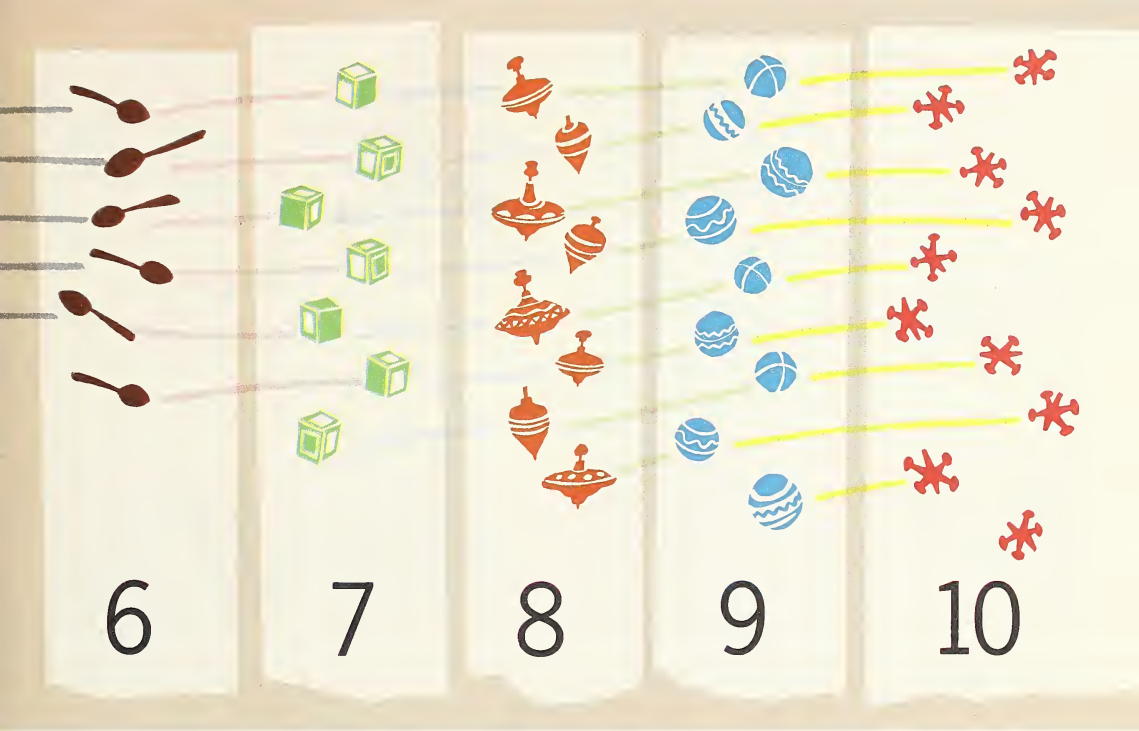
▬ is less than ●.

▬ is greater than ●.

F

A 3 is one greater than 2.
B 9 is one greater than ■.
C 4 is one greater than ■.
D 7 is one greater than ■.
E ■ is one greater than 1.
F ■ is one greater than 5.
G ■ is one greater than 9.
H ■ is one greater than 4.
I 6 is one greater than ■.
J 1 is one greater than ■.

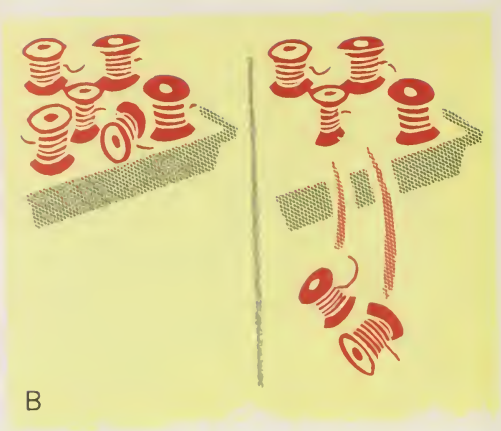
A 7 is one less than 8.
B 5 is one less than ■.
C 1 is one less than ■.
D 9 is one less than ■.
E ■ is one less than 7.
F ■ is one less than 9.
G ■ is one less than 4.
H ■ is one less than 10.
I ■ is one less than 1.
J 4 is one less than ■.



A 5 is between 4 and 6.
B ▭ is between 7 and 9.
C ▭ is between 1 and 3.
D 3 is between ▭ and 4.
E 7 is between ▭ and 8.
F 1 is between ▭ and 2.
G 8 is between 7 and ▭.
H 2 is between 1 and ▭.
I 6 is between 5 and ▭.
J 9 is between 8 and ▭.

A ▭ is one less than 3.
B 5 is one greater than ▭.
C 4 is between 3 and ▭.
D 9 is between ▭ and 10.
E 3 is one less than ▭.
F 7 is one less than ▭.
G 5 is between 4 and ▭.
H ▭ is between 6 and 8.
I ▭ is one greater than 0.
J 8 is one less than ▭.

A


B

C

D

E

F

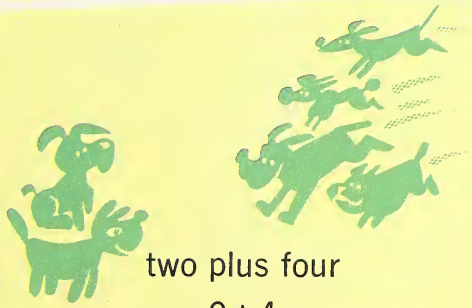
G

H

three plus one

3+1

A



two plus four

2+4

B

five plus ▪

5+▪

C

▪ plus ●

▪+●

D

five minus two

5−2

E

seven minus three

7−3

F

six minus ▪

6−▪

G

▪ minus ●

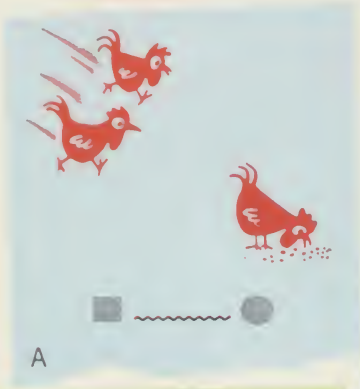
▪−●

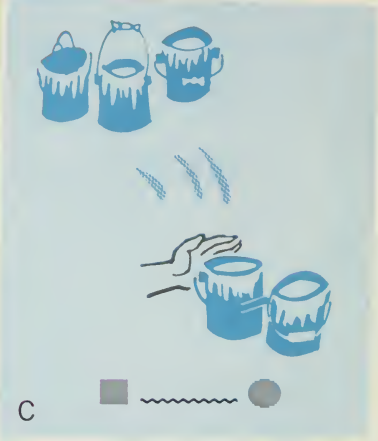
H

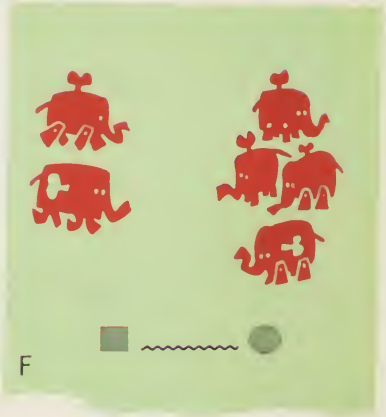
FUNDAMENTAL OPERATIONS

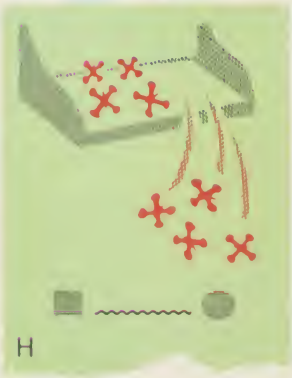
Additive action; word "plus" and symbol "+"; subtractive action; word "minus" and symbol "−" (reteaching)

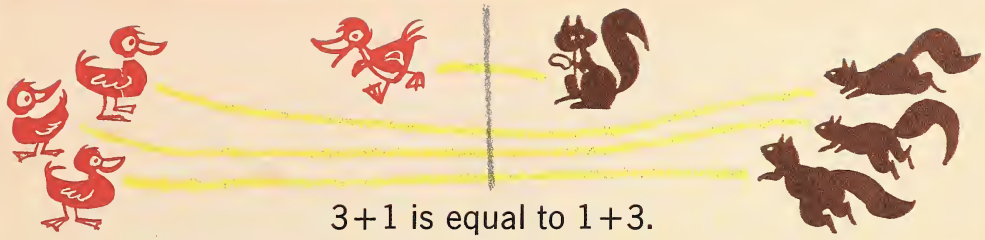
plus minus — +







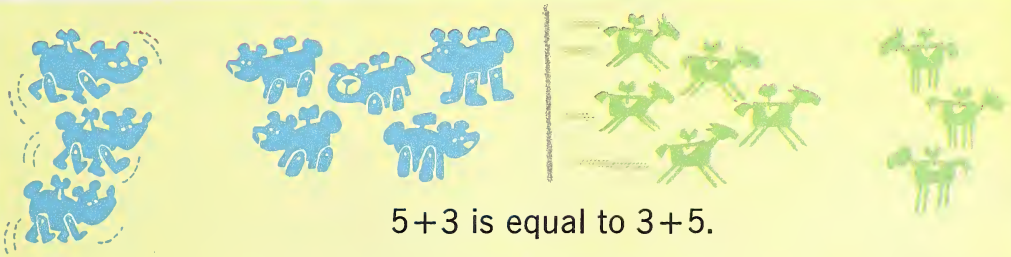




3+1 is equal to 1+3.

3+1=1+3

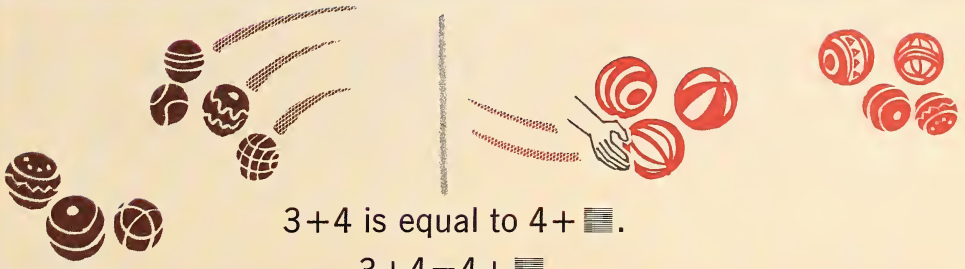
A



5+3 is equal to 3+5.

5+3=3+5

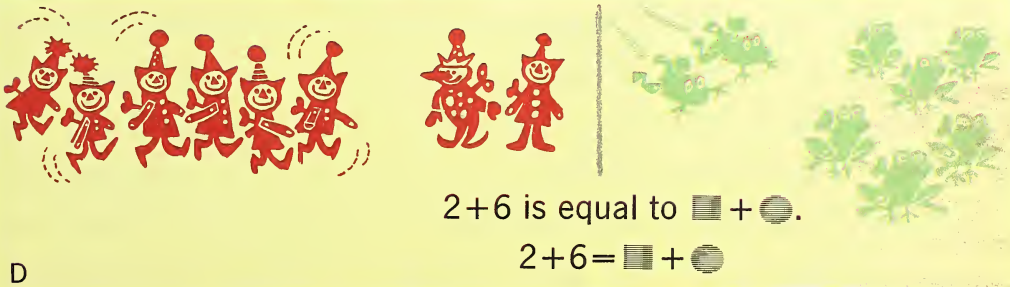
B



3+4 is equal to 4+ ▪.

3+4=4+ ▪

C

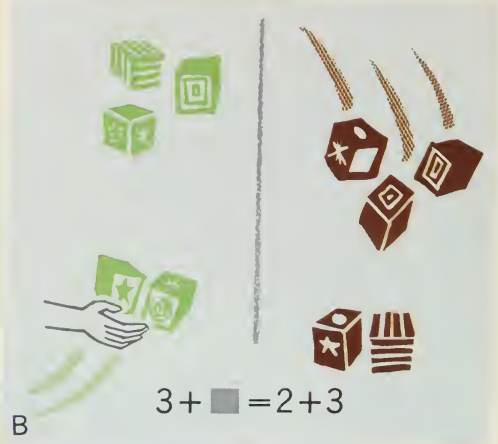


2+6 is equal to ▪ + ●.

2+6= ▪ + ●

D

A $1+6=6+\square$



B $3+\square=2+3$

C $2+5=\square+\bigcirc$

D $4+1=\square+\bigcirc$

A $1+2=\square+1$

B $2+4=4+\square$

C $3+5=\square+3$

D $7+1=\square+7$

E $5+2=2+\square$

F $3+1=1+\square$

G $4+2=\square+4$

H $3+4=4+\square$

I $2+\square=3+2$

J $6+\square=1+6$

K $\square+5=5+2$

L $\square+7=7+1$

M $2+\square=6+2$

N $\square+1=1+5$

O $5+\square=3+5$

P $\square+3=3+1$

Q $1+4=\square+\bigcirc$

R $6+2=\square+\bigcirc$

S $2+1=\square+\bigcirc$

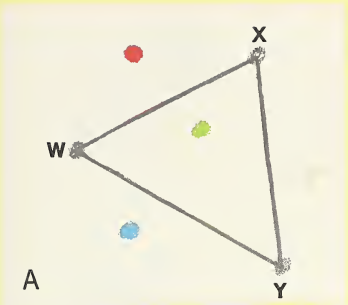
T $5+3=\square+\bigcirc$

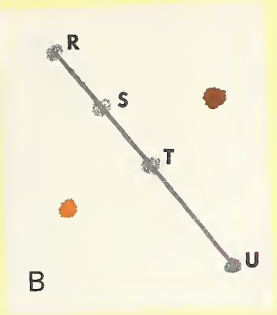
U $1+5=\square+\bigcirc$

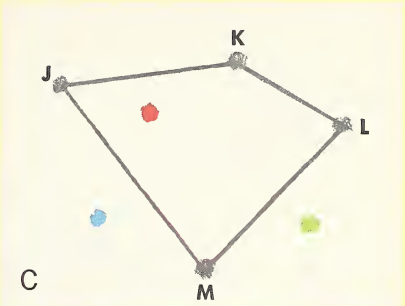
V $3+2=\square+\bigcirc$

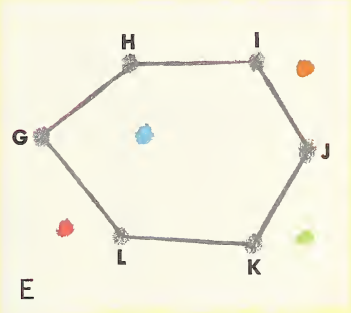
W $4+3=\square+\bigcirc$

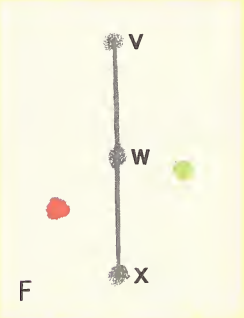
X $1+6=\square+\bigcirc$











A 4 is one greater than ▭.
B ▭ is one greater than 2.
C 6 is one less than ▭.
D ▭ is one less than 10.
E 4 is one less than ▭.
F ▭ is one greater than 7.
G ▭ is one less than 1.
H ▭ is one greater than 5.
I 2 is one greater than ▭.
J 3 is one less than ▭.
K ▭ is one greater than 0.
L 10 is one greater than ▭.

A ▭ is between 8 and 10.
B ▭ is between 2 and 4.
C 7 is between 6 and ▭.
D ▭ is between 0 and 2.
E 6 is between 5 and ▭.
F 2 is between 1 and ▭.
G ▭ is between 7 and 9.
H 5 is between ▭ and 6.
I 3 is between ▭ and 4.
J 9 is between 8 and ▭.
K ▭ is between 3 and 5.
L 1 is between ▭ and 2.

KEEPING SKILFUL
Closed curves and segments; ideas of "one greater than," "one less than," and betweenness

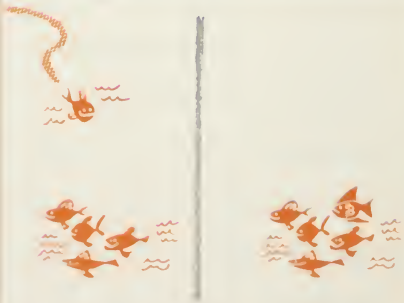
A 3+2=5

B 2+3=5

C 4+1=5

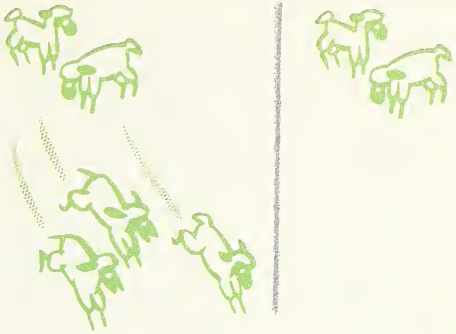
D 1+4=5

E ■+●=5

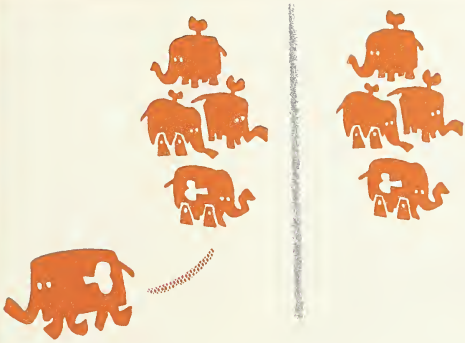


F ■+●=5

A $5-2=3$

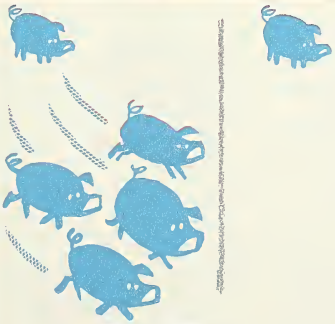


B $5-3=2$

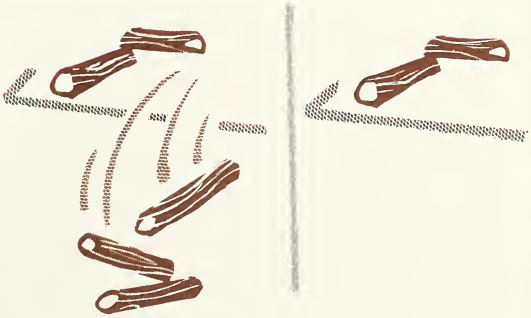


C $5-1=4$

D $5-4=1$



E $\square-\bigcirc=1$



F $\square-\bigcirc=2$

A $5-1=$ ▢

B $2+3=$ ▢

C $1+4=$ ▢

D $5-3=$ ▢

E $3+2=$ ▢

F $4+1=$ ▢

G $5-2=$ ▢

H $5-4=$ ▢

I $2+3=$ ▢

J $4+1=$ ▢

K $5-2=$ ▢

L $5-4=$ ▢

M $3+2=$ ▢

N $5-3=$ ▢

O $1+4=$ ▢

P $5-1=$ ▢

Q $5-3=$ ▢

R $5-4=$ ▢

S $3+2=$ ▢

T $1+4=$ ▢

U $5-2=$ ▢

V $5-1=$ ▢

W $2+3=$ ▢

X $4+1=$ ▢

A

B

C

D

E

F

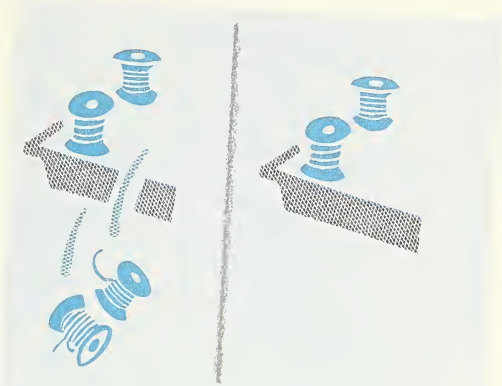
G

H

I

2+2=4

A



4−2=2

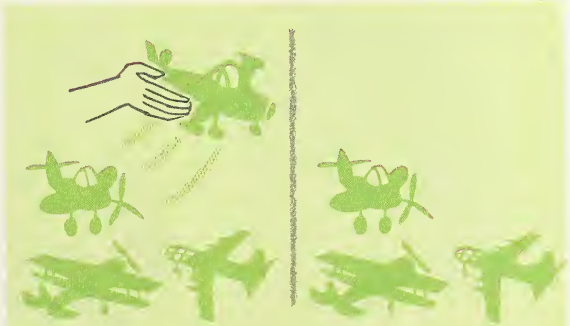
B

3+1=4

C

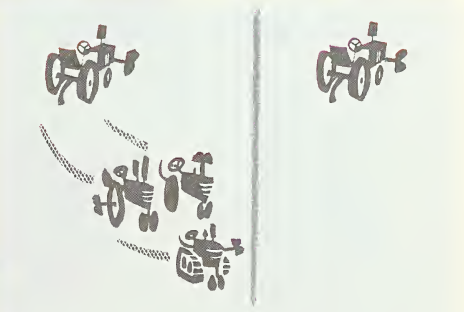
1+3=4

D



4−1=3

E



4−3=1

F

A $5-2=$ ■

B $1+3=$ ■

C $3+2=$ ■

D $4-1=$ ■

E $5-3=$ ■

F $1+4=$ ■

G $2+2=$ ■

H $4-3=$ ■

I $5-1=$ ■

J $1+4=$ ■

K $3+1=$ ■

L $2+3=$ ■

M $5-4=$ ■

N $2+2=$ ■

O $4-1=$ ■

P $2+3=$ ■

Q $1+3=$ ■

R $4+1=$ ■

S $5-3=$ ■

T $4-2=$ ■

U $3+2=$ ■

V $4-3=$ ■

W $3+1=$ ■

X $5-2=$ ■

Y $4+1=$ ■

Z $4-2=$ ■

A

B

C

D

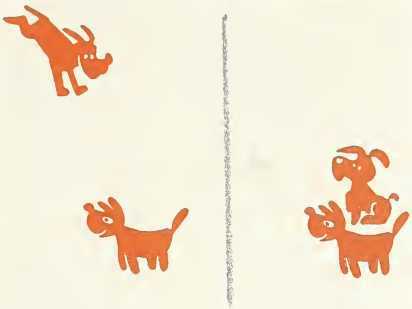
E

F

G

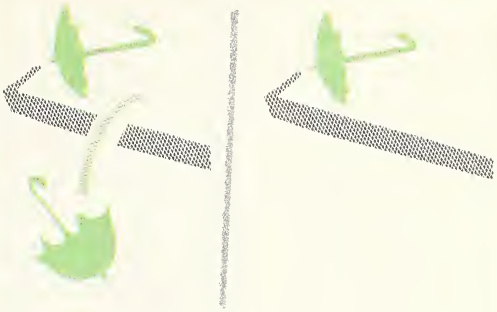
H

I



1+1=2

A



2−1=1

B

2+1=3

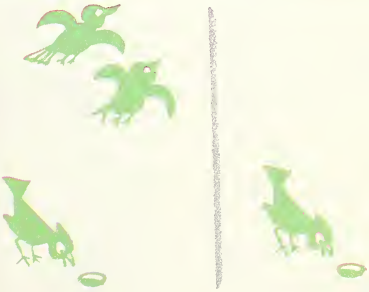
C

1+2=3

D

3−1=2

E



3−2=1

F

A $4-2=$ ▢

B $2+1=$ ▢

C $3+2=$ ▢

D $1+1=$ ▢

E $3-1=$ ▢

F $5-4=$ ▢

G $1+2=$ ▢

H $5-1=$ ▢

I $3-2=$ ▢

J $2-1=$ ▢

K $1+3=$ ▢

L $5-3=$ ▢

M $2+1=$ ▢

N $4-1=$ ▢

O $1+4=$ ▢

P $2+2=$ ▢

Q $2-1=$ ▢

R $2+3=$ ▢

S $3-2=$ ▢

T $4+1=$ ▢

U $3-1=$ ▢

V $5-2=$ ▢

W $1+1=$ ▢

X $3+1=$ ▢

Y $4-3=$ ▢

Z $1+2=$ ▢

A

B

C

D

E

F

G

H

I

is less than is equal to is greater than

A 2 ⌒ 1.
B 10 ⌒ 5.
C 1 ⌒ 3.
D 2 ⌒ 2.
E 7 ⌒ 3.
F 6 ⌒ 10.
G 4 ⌒ 6.
H 3 ⌒ 9.
I 7 ⌒ 7.
J 9 ⌒ 4.
K 6 ⌒ 2.
L 0 ⌒ 7.
M 4 ⌒ 4.
N 7 ⌒ 8.
O 4 ⌒ 0.
P 2 ⌒ 5.
Q 10 ⌒ 10.
R 8 ⌒ 6.

A 5−1=▭
B 1+2=▭
C 2+3=▭
D 1+1=▭
E 5−4=▭
F 1+3=▭
G 5−2=▭
H 3−1=▭
I 1+4=▭
J 4−3=▭
K 3+2=▭
L 4−1=▭
M 5−3=▭
N 2+1=▭
O 5−1=▭
P 4−2=▭
Q 4+1=▭
R 2−1=▭
S 5−2=▭
T 3+1=▭
U 1+1=▭
V 3−2=▭
W 1+4=▭
X 2+2=▭
Y 4−3=▭

A Four minus two is equal to ▭.
B Two plus three is equal to ▭.
C Three minus one is equal to ▭.
D Five minus four is equal to ▭.
E Four plus one is equal to ▭.
K Three plus one is equal to ▭.
L Two plus two is equal to ▭.
M Five minus two is equal to ▭.
N One plus three is equal to ▭.
O Five minus one is equal to ▭.

F One plus one is equal to ▭.
G Five minus three is equal to ▭.
H Four minus one is equal to ▭.
I Three plus two is equal to ▭.
J Three minus two is equal to ▭.
P One plus two is equal to ▭.
Q Four minus three is equal to ▭.
R Two minus one is equal to ▭.
S Two plus one is equal to ▭.
T One plus four is equal to ▭.

KEEPING SKILFUL
Ideas of "greater than," " less than," and "equal to"; sums and minuends through 5

$3+3=6$

A

$6-3=3$

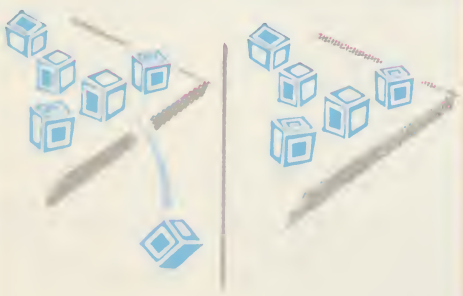
B

$5+1=6$

C

$1+5=6$

D



$6-1=5$

E

$6-5=1$

F

4+2=6

A

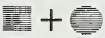
2+4=6

B

C 6−2=4

6−4=2

D

 + =6

E

− =1

F

A $6-3=$

B $4+2=$

C $1+1=$

D $6-2=$

E $2+4=$

F $3-1=$

G $3+3=$

H $6-5=$

I $5+1=$

J $6-4=$

K $1+2=$

L $1+5=$

M $6-1=$

N $2+4=$

O $6-3=$

P $3+2=$

Q $6-4=$

R $1+5=$

S $5-4=$

T $6-1=$

U $3+3=$

V $4+2=$

W $6-5=$

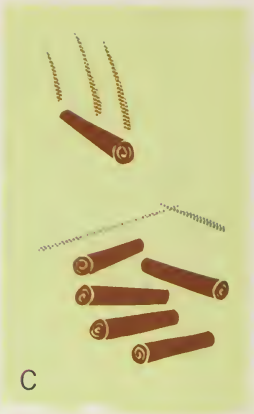
X $4-1=$

Y $6-2=$

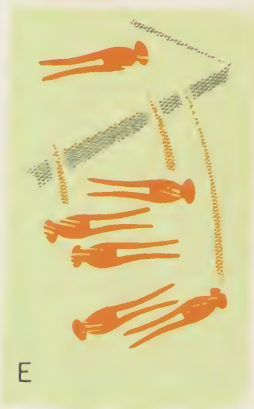
Z $5+1=$

A

B


C

D

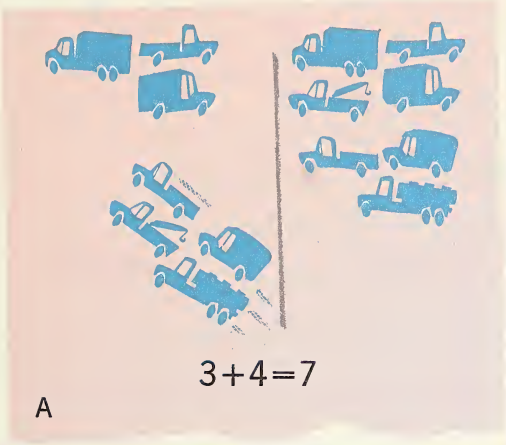

E

F

G

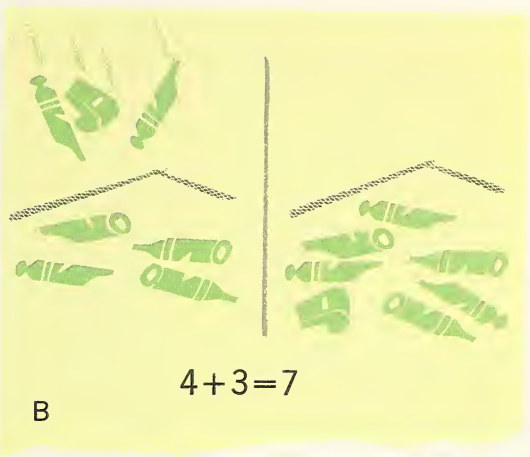
H

I



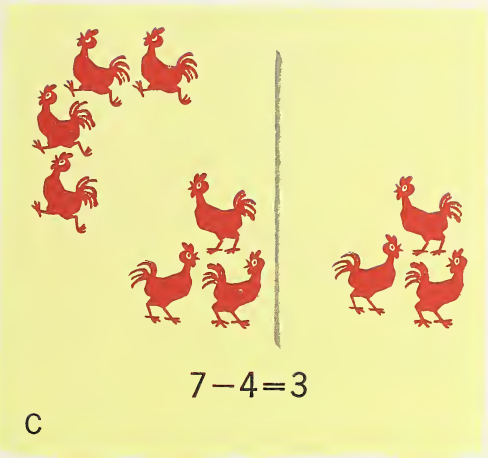
3+4=7

A



4+3=7

B

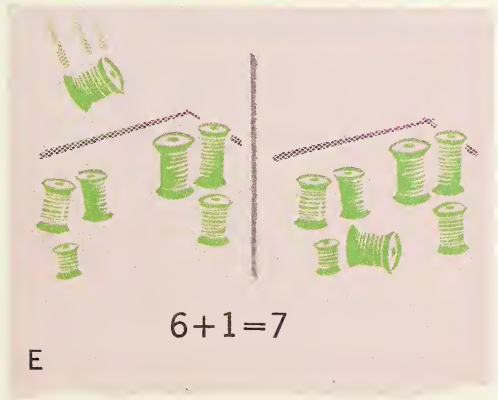


7−4=3

C

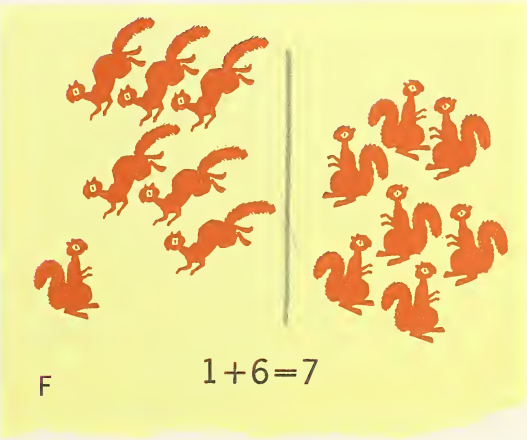
7−3=4

D



6+1=7

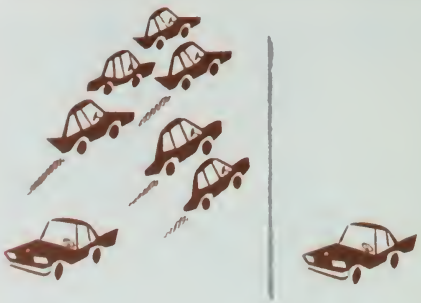
E



1+6=7

F

A $7-1=6$



B $7-6=1$

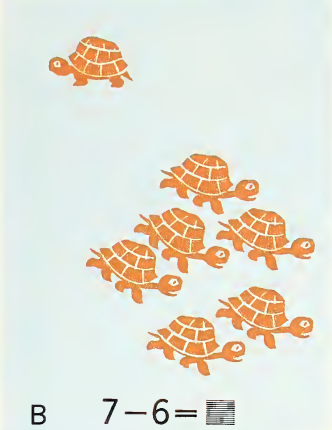
C $2+5=7$

D $5+2=7$

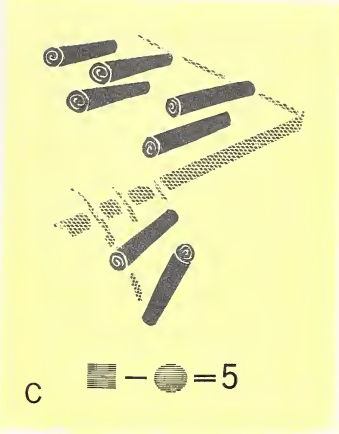
E $7-5=2$

F $7-2=5$

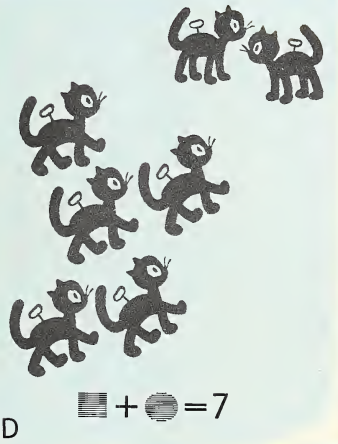
A $4+3=\square$



B $7-6=\square$



C $\square-\bigcirc=5$



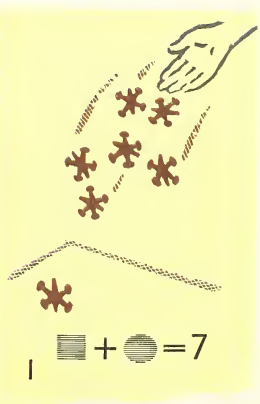
D $\square+\bigcirc=7$

E $6+1=\square$

F $7-5=\square$

G $\square-\bigcirc=3$

H $\square+\bigcirc=7$



I $\square+\bigcirc=7$

A $6-5=$ ■

B $1+6=$ ■

C $4+2=$ ■

D $7-1=$ ■

E $5+2=$ ■

F $3+4=$ ■

G $7-2=$ ■

H $2+5=$ ■

I $7-3=$ ■

J $7-5=$ ■

K $6+1=$ ■

L $7-6=$ ■

M $7-4=$ ■

N $5+2=$ ■

O $4+3=$ ■

P $7-6=$ ■

Q $7-2=$ ■

R $4+3=$ ■

S $1+6=$ ■

T $7-4=$ ■

U $5+1=$ ■

V $7-1=$ ■

W $7-5=$ ■

X $6-1=$ ■

Y $2+5=$ ■

Z $6+1=$ ■

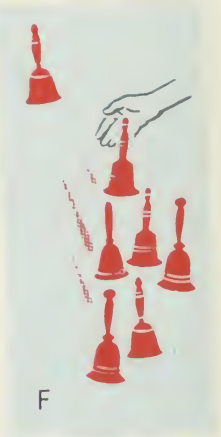
A

B

C

D

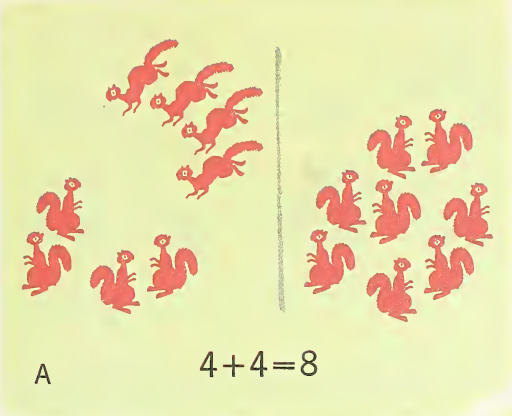
E


F

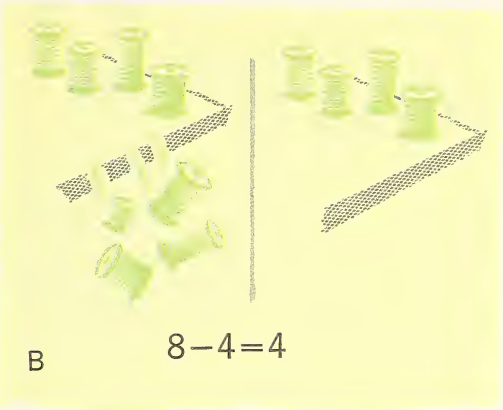
G

H

I

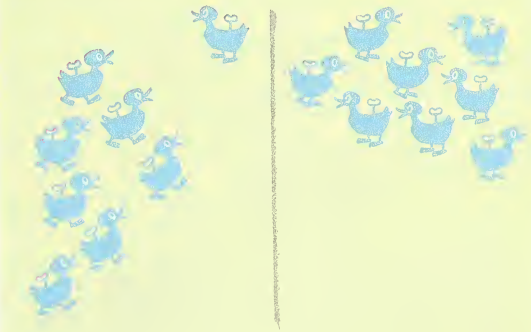


A $4+4=8$



B $8-4=4$

C $7+1=8$



D $1+7=8$

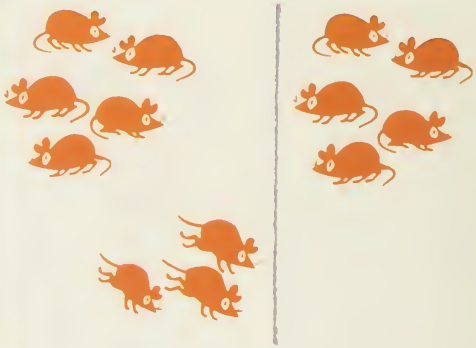
E $8-1=7$

F $8-7=1$

A $3+5=8$

B $5+3=8$

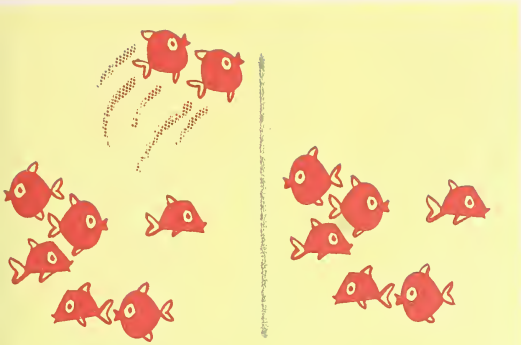
C $8-5=3$



D $8-3=5$

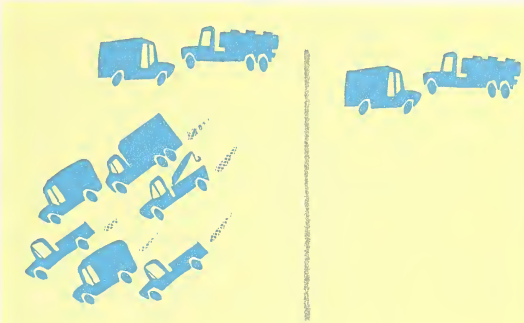
E $6+2=8$

F $2+6=8$



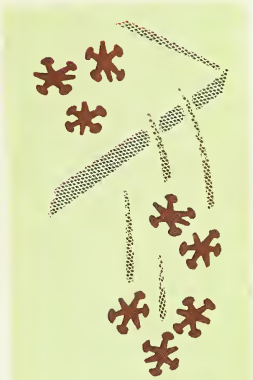
8−2=6

A

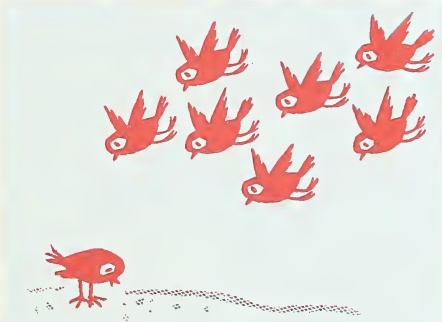


8−6=2

B



C 8−5=□

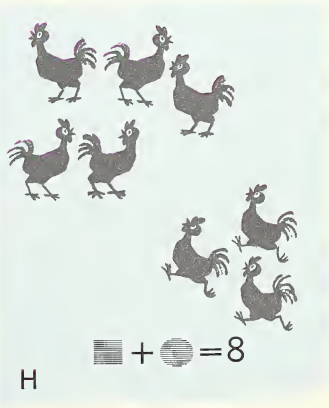


D □+○=8

E 4+4=□

F 8−1=□

G □−○=2



H □+○=8

A $7+1=\square$

B $\square+\bigcirc=8$

C $\square-\bigcirc=5$

D $\square-\bigcirc=4$

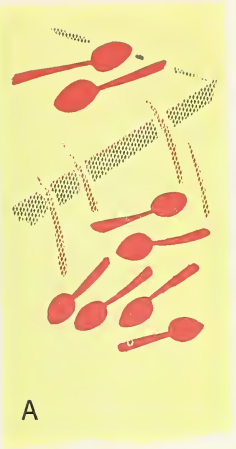
E $3+5=\square$

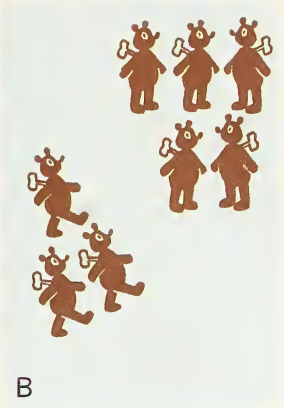
F $\square-\bigcirc=1$

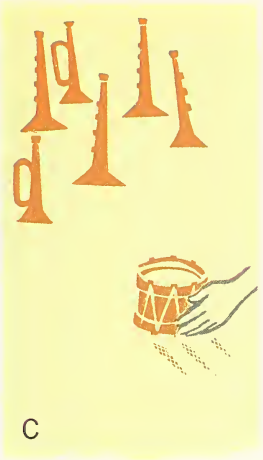
G $7-4=\square$

H $\square+\bigcirc=8$

I $8-2=\square$

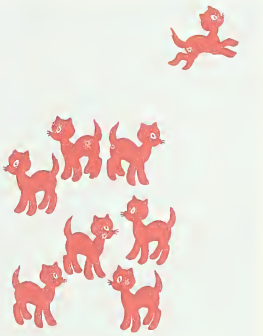

A


B


C

D

E


F

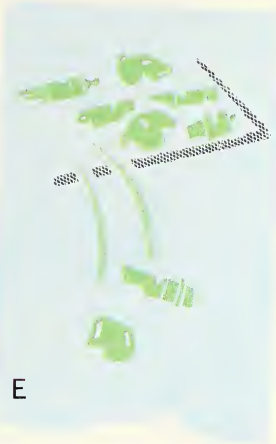
G

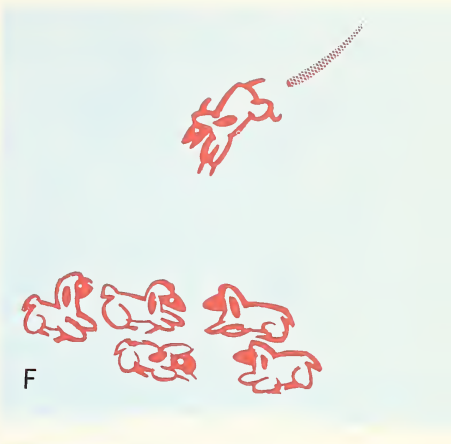
H

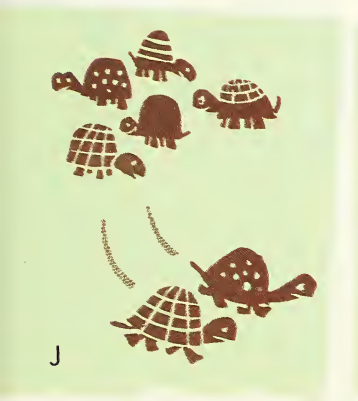
I

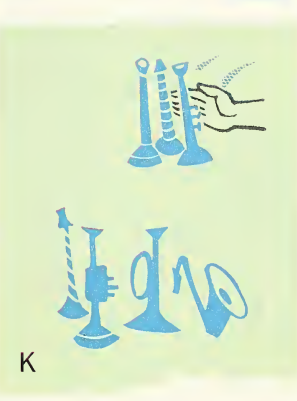
A 3+4=
B 1+7=
C 8−2=
D 5+3=
E 8−5=
F 2+6=
G 4+4=
H 8−6=
I 8−1=
J 3+5=
K 6+2=
L 7−5=
M 8−3=
N 7+1=
O 2+5=
P 8−6=
Q 7−3=
R 2+6=
S 1+5=
T 8−4=
U 3+5=
V 8−7=
W 5+3=
X 8−2=
Y 8−5=
Z 6+2=

1	2	3	4
2−1	1+1	1+2	1+3
3−2	3−1	2+1	2+2
4−3	4−2	4−1	3+1
5−4	5−3	5−2	5−1
6−5	6−4	6−3	6−2
7−6	7−5	7−4	7−3
8−7	8−6	8−5	8−4









5	6	7	8
1+4	1+5	1+6	1+7
2+3	2+4	2+5	2+6
3+2	3+3	3+4	3+5
4+1	4+2	4+3	4+4
6−1	5+1	5+2	5+3
7−2	7−1	6+1	6+2
8−3	8−2	8−1	7+1

A $1+2$ is equal to $5-2$.

B $3+3$ is equal to $2+4$.

C $8-3$ is greater than $1+3$.

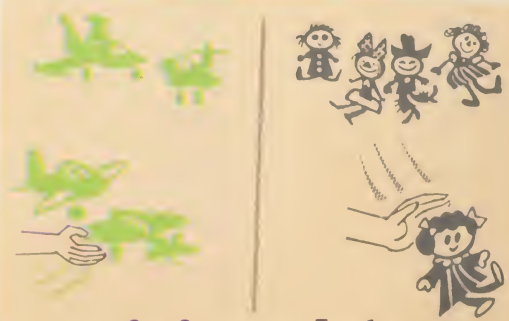
$1+3$ is less than $8-3$.

D $4-2$ is less than $7-4$.

$7-4$ is greater than $4-2$.

E $2+5$ ..... $6-4$.

$6-4$ ..... $2+5$.



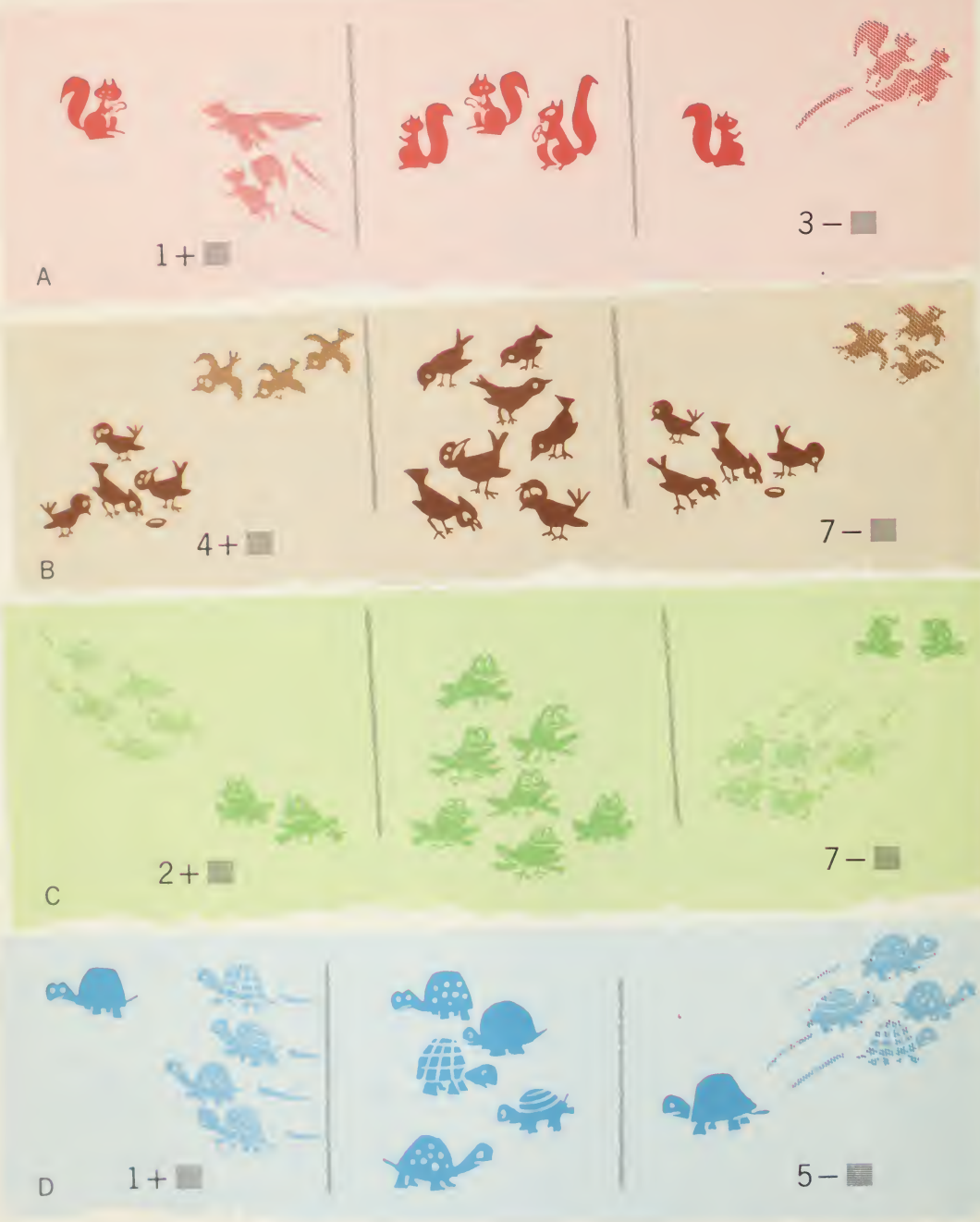
F $2+2$ ..... $5-1$.

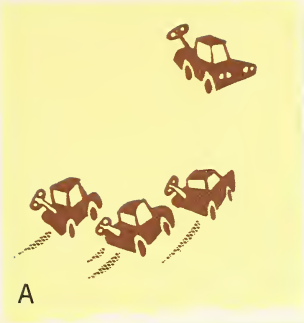
$5-1$ ..... $2+2$.

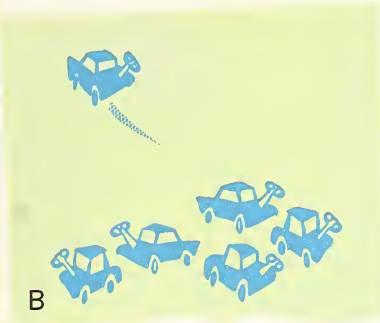
A 8−3=	F 4+2=	K 3+4=	P 8−2=	U 7+1=
B 1+2=	G 5−4=	L 3+2=	Q 5+3=	V 6−4=
C 7−1=	H 6+1=	M 8−6=	R 7−6=	W 8−5=
D 4+4=	I 7−3=	N 3+3=	S 8−4=	X 5+2=
E 6−3=	J 3+5=	O 7−4=	T 7−2=	Y 2+4=

A Four plus three is equal to .
B Two plus six is equal to .
C Six minus five is equal to .
D Three plus five is equal to .
E Eight minus seven is equal to .
F One plus six is equal to .
G Seven minus four is equal to .
H Six minus two is equal to .
I Five plus two is equal to .
J One plus five is equal to .
K Eight minus six is equal to .
L Six plus two is equal to .
M Two plus five is equal to .
N Six minus one is equal to .
O One plus seven is equal to .
P Five plus one is equal to .
Q Seven minus five is equal to .
R Eight minus one is equal to .

	is greater than	is less than	is equal to
A	5−4 ⌒ 8−7.	H 5−2 ⌒ 4+4.	O 7−1 ⌒ 2+3.
B	1+1 ⌒ 1+2.	I 8−6 ⌒ 5−1.	P 1+1 ⌒ 6−4.
C	4+1 ⌒ 5+2.	J 2+1 ⌒ 7−4.	Q 7−2 ⌒ 8−2.
D	3+3 ⌒ 3+1.	K 4+4 ⌒ 2+5.	R 8−4 ⌒ 3+4.
E	1+6 ⌒ 4+3.	L 6−3 ⌒ 6−5.	S 3+2 ⌒ 8−3.
F	2+3 ⌒ 7−5.	M 5+3 ⌒ 2+6.	T 4+3 ⌒ 7−4.
G	7−1 ⌒ 8−2.	N 3−2 ⌒ 1+5.	U 4−2 ⌒ 2+2.


A
1 + ■
3 − ■
B
4 + ■
7 − ■
C
2 + ■
7 − ■
D
1 + ■
5 − ■

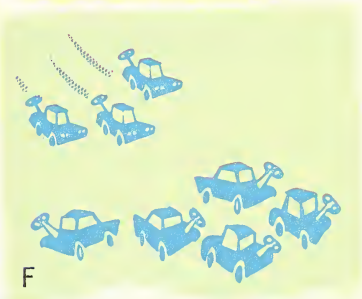

A

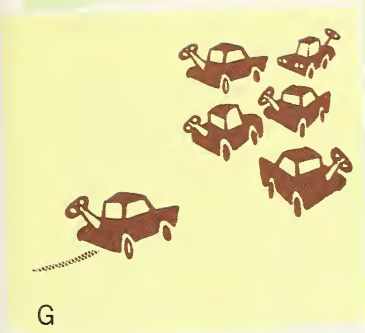

B

C

D

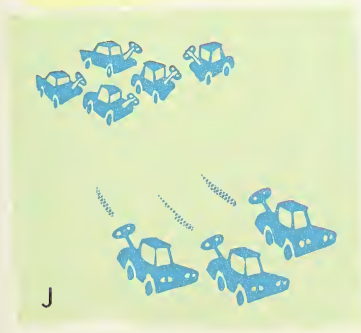
E

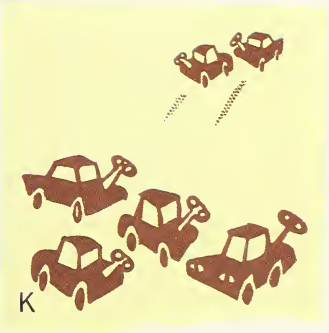

F

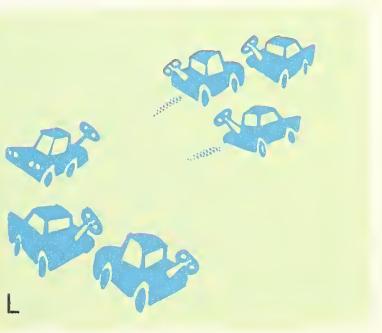

G

H

I


J


K


L

A 2 is one greater than ▢.
B 6 is one greater than ▢.
C 9 is one less than ▢.
D 4 is one less than ▢.
E ▢ is one greater than 9.
F ▢ is one greater than 2.
G ▢ is one greater than 0.
H ▢ is one less than 6.

A ▢ is between 6 and 8.
B ▢ is between 4 and 6.
C ▢ is between 1 and 3.
D 8 is between 7 and ▢.
E 3 is between 2 and ▢.
F 9 is between 8 and ▢.
G 4 is between ▢ and 5.
H 1 is between ▢ and 2.

A 6−3=▢	F 5+2=▢	K 7−4=▢	P 4+4=▢	U 4+1=▢
B 2+3=▢	G 8−5=▢	L 3+1=▢	Q 6−2=▢	V 7−1=▢
C 1+7=▢	H 2−1=▢	M 6+2=▢	R 8−7=▢	W 4−2=▢
D 7−5=▢	I 2+4=▢	N 5−2=▢	S 1+2=▢	X 5+1=▢
E 1+3=▢	J 6+1=▢	O 6−1=▢	T 8−2=▢	Y 5−3=▢

A 3+4=▢	F 3+2=▢	K 2+5=▢	P 4+2=▢	U 8−4=▢
B 4−1=▢	G 6−4=▢	L 7−3=▢	Q 7+1=▢	V 3+3=▢
C 2+6=▢	H 4+3=▢	M 3+5=▢	R 3−2=▢	W 6−5=▢
D 7−6=▢	I 2+1=▢	N 1+4=▢	S 5+3=▢	X 7−2=▢
E 1+5=▢	J 8−3=▢	O 8−6=▢	T 1+6=▢	Y 8−1=▢

is equal to is greater than is less than

A 8 ▢ 6.
B 1+3 ▢ 2+2.
C 6+2 ▢ 3+4.
D 3−2 ▢ 6−3.
E 8−5 ▢ 2−1.
F 10 ▢ 10.
G 2+4 ▢ 5+3.
H 0 ▢ 7.
I 5−2 ▢ 7−4.
J 1+2 ▢ 6−2.
K 8−1 ▢ 4+1.
L 2+3 ▢ 8−3.

A

3 pigs are eating.

3

B

2 more pigs
are coming to eat.

3+2

C

Then how many pigs
will be eating?

3+2

3+2=

D

5 pigs are eating.

3+2=5

4 puppies were playing.
2 other puppies ran to play.
Then how many puppies
were playing?

A

4 puppies are playing.

4

B

2 other puppies
are running to play.

C 4+2

Now how many puppies
are playing?

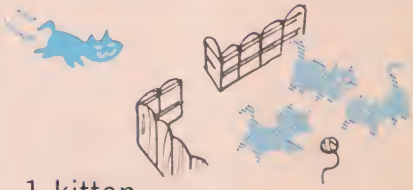
D 4+2=

3 kittens were in the yard.
1 kitten came to join them.
How many kittens
were in the yard then?

E

3 kittens are in the yard.

F 3



1 kitten
is coming to join them.

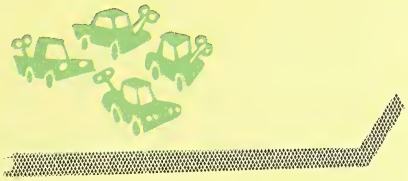
G 3+1

How many kittens
are in the yard now?

H 3+1=

4 toy cars were on the table.
Jim put 1 new car with them.
How many toy cars
were on the table then?

A



4

B

4+1

C

4+1=☐

D

3 chickens were eating.
4 more chickens came to eat.
Then how many chickens
were eating?

E

3

F

3+4

G

3+4=☐

H

A

5 ducks were in the pond.
3 ducks came to join them.
Then how many ducks were in the pond?

$5+3=\square$

B

3 books were on the table.
Tom put 3 other books with them.
Then how many books were on the table?

$3+3=\square$

C

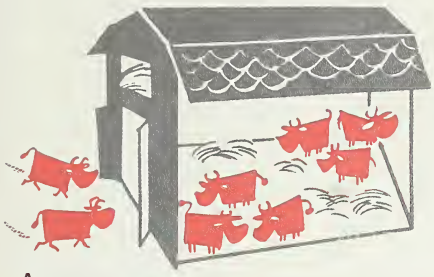
5 rabbits were in the yard.
2 other rabbits ran into the yard.
How many rabbits were in the yard then?

$5+2=\square$

D

1 toy dog was on the table.
Nancy put 2 more toy dogs on the table.
How many toy dogs were on the table then?

$1+2=\square$



6 cows were in the barn.
2 other cows came into the barn.
How many cows were in the barn then?

A

Jack had 2 toy wagons.
He bought 4 more toy wagons.
How many toy wagons did Jack have then?

B

4 cats were playing.
2 cats ran to join them.
Then how many cats were playing?

C

5 dolls were on the table.
Jane put 1 new doll on the table.
How many dolls were on the table then?

D

A 2 turtles were in a pond.
3 turtles came to join them.
Then how many turtles were in the pond?

B Nancy had 4 pictures of dogs.
She found 4 new pictures of dogs.
How many pictures of dogs
did Nancy have then?

C 2 boys were playing ball.
5 other boys came to play ball.
Then how many boys were playing ball?

D 2 birds were eating.
6 other birds came to eat.
How many birds were eating then?

E Dick had 2 toy cars.
His father gave him 2 new toy cars.
How many toy cars did Dick have then?

F 1 kitten was in a basket.
Jim put 5 more kittens into the basket.
Then how many kittens were in the basket?

G Sally had 4 doll dresses.
She bought 3 more doll dresses.
How many doll dresses
did Sally have then?

H 6 horses were in a field.
1 other horse came into the field.
Then how many horses were in the field?

A $2+5=\blacksquare$
B $6+2=\blacksquare$
C $2+2=\blacksquare$
D $6+1=\blacksquare$
E $2+3=\blacksquare$
F $3+4=\blacksquare$
G $5+2=\blacksquare$
H $4+3=\blacksquare$
I $3+2=\blacksquare$
J $2+6=\blacksquare$
K $4+4=\blacksquare$
L $1+5=\blacksquare$

A $8-3=\blacksquare$
B $5+1=\blacksquare$
C $8-7=\blacksquare$
D $4+2=\blacksquare$
E $3+5=\blacksquare$
F $8-4=\blacksquare$
G $3+3=\blacksquare$
H $5-3=\blacksquare$
I $6-4=\blacksquare$
J $5+3=\blacksquare$
K $1+6=\blacksquare$
L $7-4=\blacksquare$
M $7+1=\blacksquare$

A

6 dogs are playing.

6

B

4 of the dogs
are running away.

6–4

C

Then how many dogs
will be playing?

6–4

6–4=

D

2 dogs are playing.

6–4=2

5 chickens were eating.
3 of the chickens went away.
How many chickens
were eating then?

A

5 chickens are eating.

B 5

3 of the chickens
are going away.

C 5–3

How many chickens
are eating now?

D 5–3=

6 kittens were sleeping.
1 of the kittens ran to play.
Then how many kittens
were sleeping?

E

6 kittens are sleeping.

F 6

1 of the kittens
is running to play.

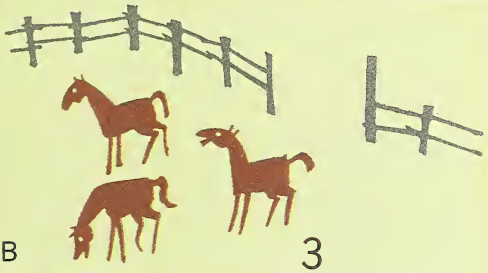
G 6–1

Now how many kittens
are sleeping?

H 6–1=

3 ponies were in a field.
2 of the ponies
ran out of the field.
Then how many ponies
were in the field?

A

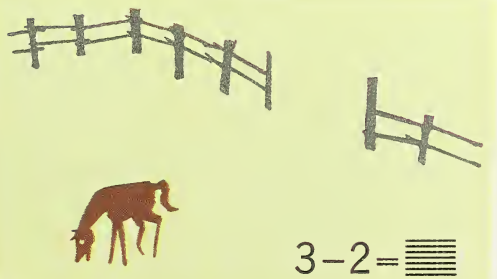


B

3

C

3 – 2



D

3 – 2 = ☰

Nancy had 8 jacks.
She gave 3 of the jacks to Susan.
How many jacks
did Nancy have left?

E

F

8

G

8 – 3

H

8 – 3 = ☰

Jane had 4 pictures.
She gave 1 of the pictures to Nancy.
Then Jane had how many pictures?

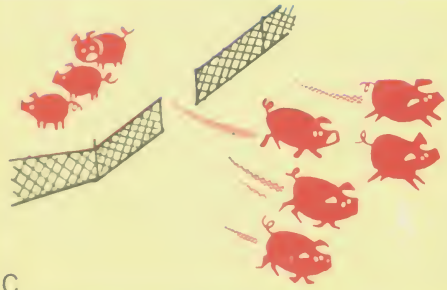
$4-1=\square$

A

7 balls were on the table.
2 of the balls fell off the table.
How many balls were left on the table?

$7-2=\square$

B



8 pigs were in the yard.
5 pigs ran out of the yard.
How many pigs were in the yard then?

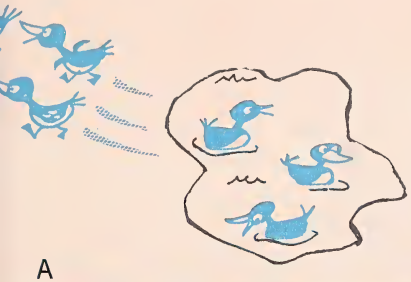
$8-5=\square$

C

7 toy cars were in a box.
Jack took 3 of the cars out of the box.
How many cars were left in the box?

$7-3=\square$

D

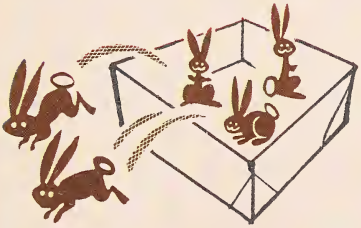


A

6 ducks were in the pond.
3 of the ducks left the pond.
Then how many ducks were in the pond?

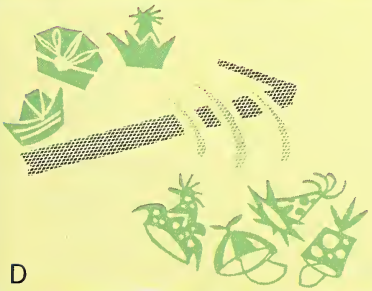
B

8 books were on a shelf.
Nancy took 1 of the books to school.
How many books were left on the shelf?



C

5 rabbits were in a box.
2 of the rabbits jumped out of the box.
How many rabbits were in the box then?



D

7 hats were on the table.
4 of the hats fell off the table.
Then how many hats were on the table?

A Jane had 2 doll dresses.
She gave 1 of the doll dresses to Ann.
How many doll dresses did Jane have left?

B 4 kittens were in a basket.
3 of them jumped out of the basket.
How many kittens were in the basket then?

C 8 boys were playing ball.
2 of the boys went home.
Then how many boys were playing ball?

D Ann had 5 jacks.
She lost 1 of them.
How many jacks did she have left?

E 7 horses were in the barn.
5 of the horses ran out of the barn.
How many horses were in the barn then?

F 8 cookies were on a plate.
Mother gave 3 of the cookies to Tim.
Then how many cookies were on the plate?

G 3 dolls were in the dollhouse.
Susan took 1 of the dolls out of the dollhouse.
Then how many dolls were in the dollhouse?

H 8 boxes were on the table.
Bill put 4 of the boxes on a shelf.
How many boxes were on the table then?

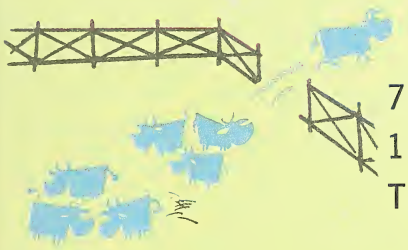
A $8-2=\square$
B $4-1=\square$
C $7-2=\square$
D $8-3=\square$
E $2-1=\square$
F $5-4=\square$
G $7-5=\square$
H $3-1=\square$
I $8-5=\square$
J $4-3=\square$
K $8-4=\square$
L $5-1=\square$

A $2+4=\square$
B $3+5=\square$
C $5-2=\square$
D $8-6=\square$
E $6-3=\square$
F $4+3=\square$
G $2+2=\square$
H $1+7=\square$
I $6-2=\square$
J $5+3=\square$
K $3+2=\square$
L $2+5=\square$
M $7-3=\square$

1 turtle was in a box.
Dick put 4 other turtles into the box.
How many turtles were in the box then?

$1 ____ 4 = \equiv$

A



7 cows were in the barnyard.
1 of the cows left the barnyard.
Then how many cows were in the barnyard?

$7 ____ 1 = \equiv$

B

Tom had 6 toy cars.
He gave 2 of the cars to Jim.
How many toy cars did Tom have then?

$6 ____ 2 = \equiv$

C

3 birds were in the yard.
2 birds came to join them.
Then how many birds were in the yard?

$3 ____ 2 = \equiv$

D

A Sally had 6 blocks.
She gave 3 of the blocks to Jane.
How many blocks did Sally have then?

B Bill had 2 tops.
He bought 1 more top.
How many tops did Bill have then?

C 2 pigs were in the barnyard.
4 pigs came to join them.
Then how many pigs were in the barnyard?

D 7 puppies were in the yard.
4 of the puppies ran away.
Then how many puppies were in the yard?

E 4 plates were on the table.
Ann put 3 other plates on the table.
How many plates were on the table then?

F 4 toy cows were on the table.
Pete took 3 of them away.
Then how many toy cows were on the table?

G 5 toy clowns were on a shelf.
2 of the clowns fell off the shelf.
How many toy clowns were left on the shelf?

H Susan had 5 storybooks.
She was given 3 storybooks for her birthday.
How many storybooks did Susan have then?

A $7-4=\square$
B $1+2=\square$
C $3+4=\square$
D $4-2=\square$
E $5+3=\square$
F $5-2=\square$
G $4+3=\square$
H $6-3=\square$
I $3+5=\square$
J $2+1=\square$
K $4-3=\square$
L $2+4=\square$

A $6-5=\square$
B $8-1=\square$
C $2+3=\square$
D $6-4=\square$
E $7-6=\square$
F $6+2=\square$
G $4+2=\square$
H $8-7=\square$
I $4+4=\square$
J $5-3=\square$
K $2+6=\square$
L $7-1=\square$
M $5+2=\square$

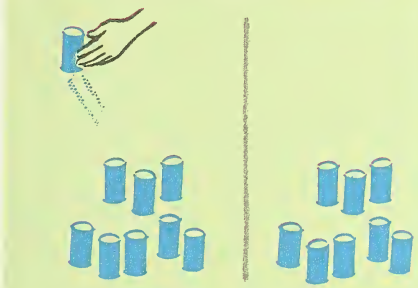
KEEPING SKILFUL
Additive action and subtractive action—sentences of the forms $3+2=\square$ and $6-4=\square$; sums and minuends through 8

$8+1=9$

A

$1+8=9$

B

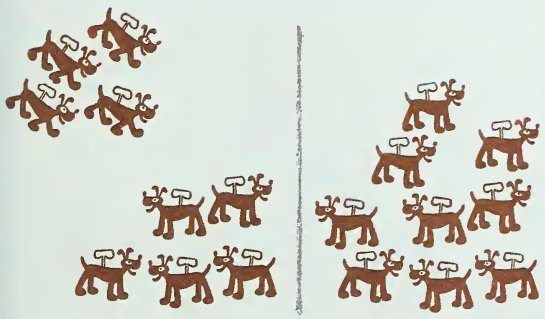


$9-1=8$

C

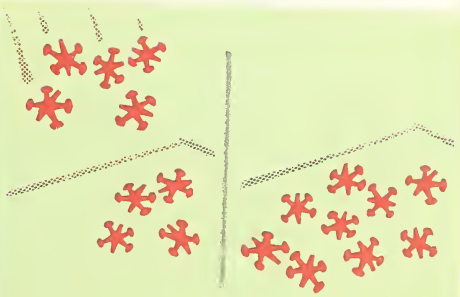
$9-8=1$

D



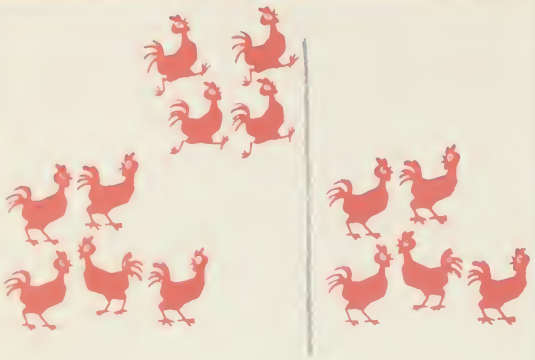
$5+4=9$

E



$4+5=9$

F

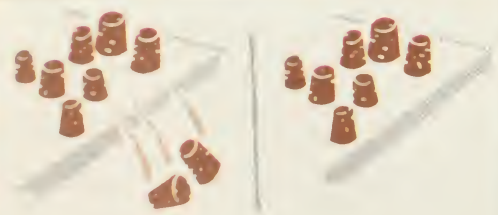


A $9-4=5$

B $9-5=4$

C $7+2=9$

D $2+7=9$

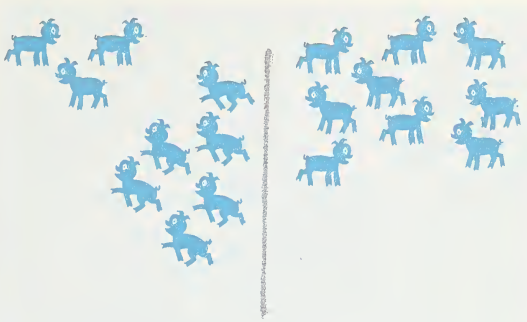


E $9-2=7$

F $9-7=2$

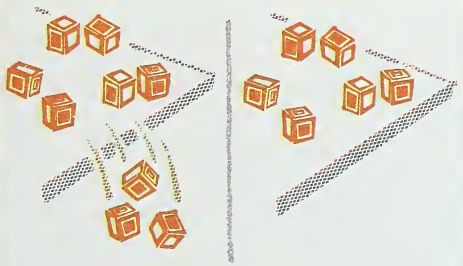
A

$6+3=9$



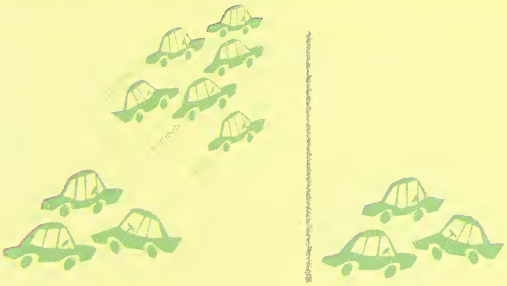
B

$3+6=9$



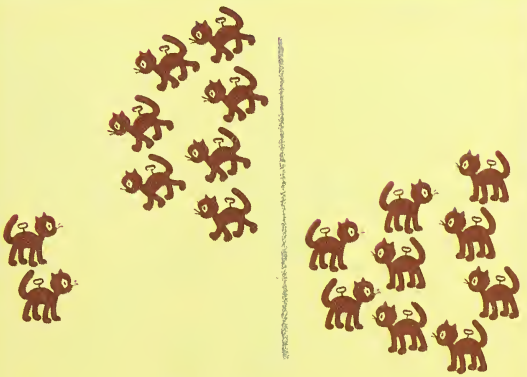
C

$9-3=6$



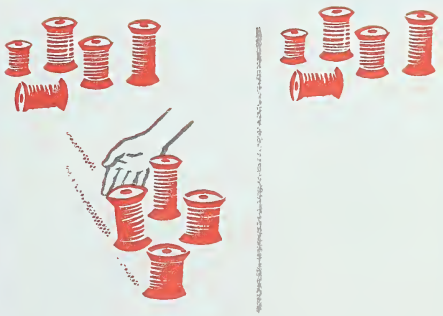
D

$9-6=3$



E

$\square+\bigcirc=9$

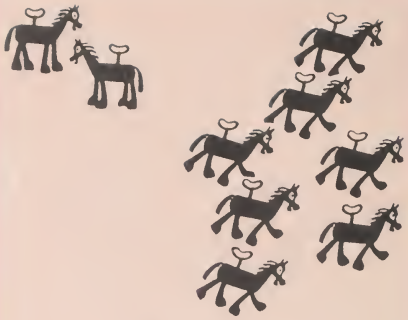


F

$\square-\bigcirc=5$

A $5+4=\square$

B $\square+\bigcirc=9$



C $\square-\bigcirc=2$

D $9-3=\square$

E $1+8=\square$

F $\square-\bigcirc=4$

G $\square+\bigcirc=9$

H $6+3=\square$

I $9-1=\square$

A

B

C

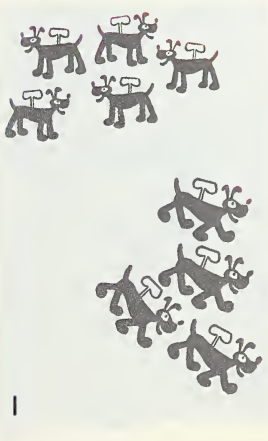
D

E

F

G

H



I

A $9-1=$

B $7+2=$

C $6+3=$

D $9-5=$

E $5+3=$

F $1+8=$

G $9-6=$

H $8-3=$

I $3+6=$

J $9-2=$

K $6+2=$

L $9-4=$

M $3+5=$

N $4+5=$

O $6+3=$

P $9-8=$

Q $2+7=$

R $9-4=$

S $9-7=$

T $5+4=$

U $9-3=$

V $3+6=$

W $8-5=$

X $9-3=$

Y $8+1=$

Z $9-6=$

A

$5+5=10$

B

$10-5=5$

C

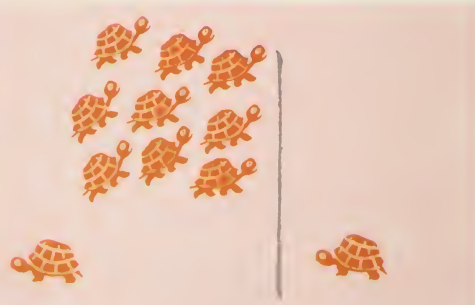
$9+1=10$

D

$1+9=10$

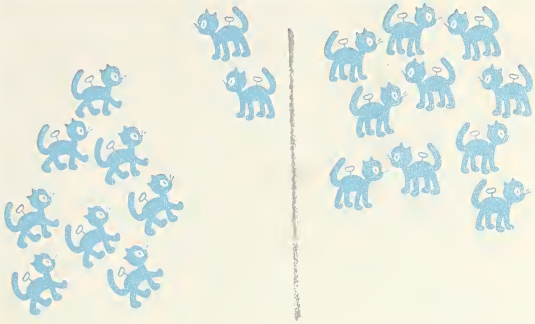
E

$10-1=9$



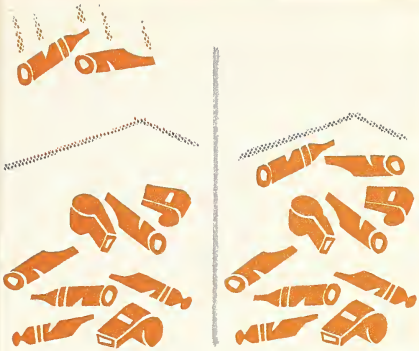
F

$10-9=1$



A

$2+8=10$

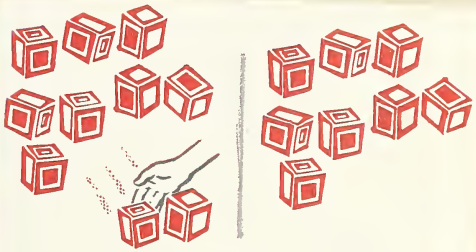


B

$8+2=10$

C

$10-8=2$

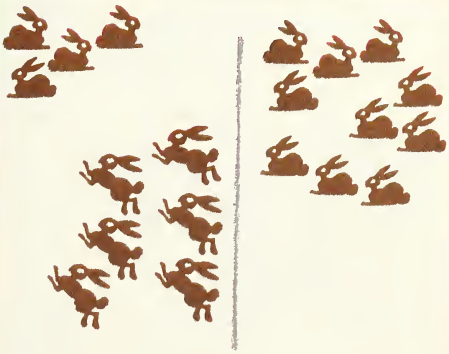


D

$10-2=8$

E

$6+4=10$

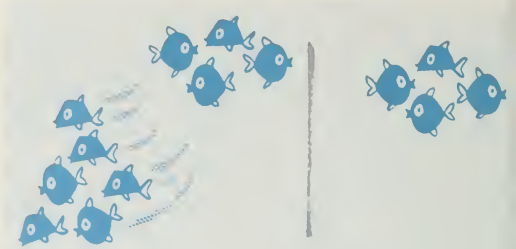


F

$4+6=10$

$10-4=6$

A



$10-6=4$

B

$3+7=10$

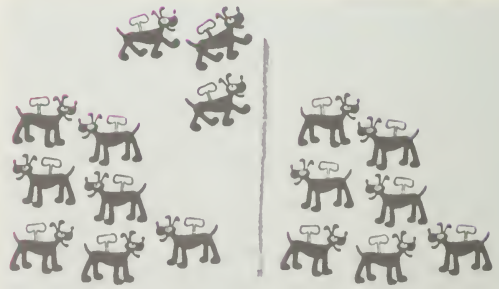
C

$7+3=10$

D

$10-7=3$

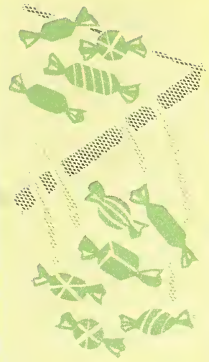
E



$10-3=7$

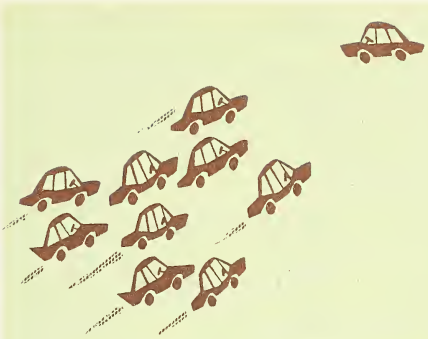
F

A ■ + ● = 10



10 − 6 = ■

B



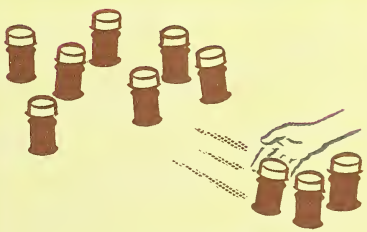
C 1 + 9 = ■

D ■ − ● = 2

E ■ − ● = 5

F ■ + ● = 10

G 7 + 3 = ■



H 10 − 3 = ■

I ■ + ● = 10

A 2+7=■

B 10−5=■

C 1+9=■

D 10−7=■

E 8+2=■

F 9−2=■

G 5+5=■

H 3+6=■

I 10−3=■

J 6+4=■

K 10−1=■

L 3+7=■

M 9−5=■

N 10−2=■

O 7+3=■

P 10−4=■

Q 10−7=■

R 2+8=■

S 9−3=■

T 4+6=■

U 10−8=■

V 3+7=■

W 9+1=■

X 10−6=■

Y 7+3=■

Z 10−9=■

A

B

C

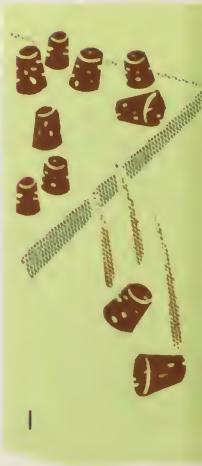
D

E

F

G

H


I

A 6 chickens were in the barn.
5 of them left the barn.
Then how many chickens were in the barn?

B Ann had 7 doll dresses.
She made 3 new doll dresses.
Then Ann had how many doll dresses?

C Dick had 3 cars for his train.
He bought 4 more cars.
How many cars did Dick have
for his train then?

D 9 apples were in a basket.
Mother gave 2 of the apples to Sally.
Then how many apples were in the basket?

E 8 boys were flying kites.
2 more boys came to fly kites.
Then how many boys were flying kites?

F Jack had 10 fish.
He gave 6 of the fish
to his grandfather.
How many fish did Jack have left?

G 9 blocks were on a shelf.
Pete took 5 of the blocks off the shelf.
Then how many blocks were on the shelf?

H 2 ducks were in a pond.
7 ducks came to join them.
Then how many ducks were in the pond?

A $9-2=$ ▒
B $3+7=$ ▒
C $8+2=$ ▒
D $9-5=$ ▒
E $6-5=$ ▒
F $7+2=$ ▒
G $3+4=$ ▒
H $10-6=$ ▒
I $6-1=$ ▒
J $7+3=$ ▒
K $10-4=$ ▒
L $2+7=$ ▒

A $10-2=$ ▒
B $1+8=$ ▒
C $8-2=$ ▒
D $9-4=$ ▒
E $5+5=$ ▒
F $8-5=$ ▒
G $9-7=$ ▒
H $4+5=$ ▒
I $1+7=$ ▒
J $10-9=$ ▒
K $5+3=$ ▒
L $9-1=$ ▒
M $2+8=$ ▒

A 8 girls were playing jacks.
6 of the girls went home.
Then how many girls were playing jacks?

B 10 tops were in a box.
Nancy took 3 of them out of the box.
How many tops were in the box then?

C 5 apples were on a plate.
Jane put 4 more apples on the plate.
Then how many apples were on the plate?

D 3 birds were in a tree.
6 birds came to join them.
How many birds were in the tree then?

E 10 rabbits were in the garden.
5 of the rabbits ran away.
Then how many rabbits were in the garden?

F 6 toy horses were in a box.
Tim put 4 new toy horses into the box.
Then how many toy horses were in the box?

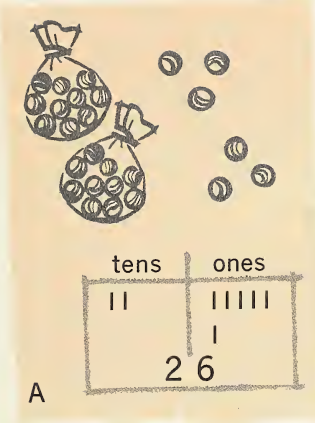
G Bill had 9 books.
He gave 1 of them to his brother.
How many books did Bill have left?

H Linda had 7 toy animals.
She was given 1 toy animal for her birthday.
How many toy animals did Linda have then?

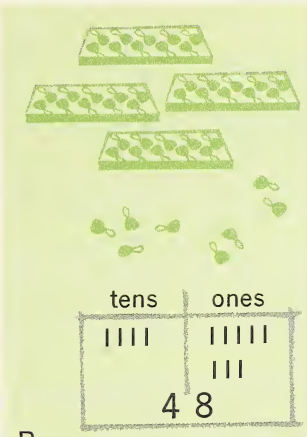
A $5+4=$ ▒
B $8-3=$ ▒
C $10-5=$ ▒
D $6+3=$ ▒
E $8-6=$ ▒
F $7+1=$ ▒
G $10-7=$ ▒
H $3+6=$ ▒
I $9-1=$ ▒
J $10-3=$ ▒
K $9-6=$ ▒
L $6+4=$ ▒

A $1+9=$ ▒
B $3+5=$ ▒
C $9-3=$ ▒
D $10-8=$ ▒
E $7+3=$ ▒
F $9-8=$ ▒
G $9+1=$ ▒
H $4+6=$ ▒
I $8-4=$ ▒
J $8+1=$ ▒
K $9-4=$ ▒
L $10-1=$ ▒
M $5+5=$ ▒

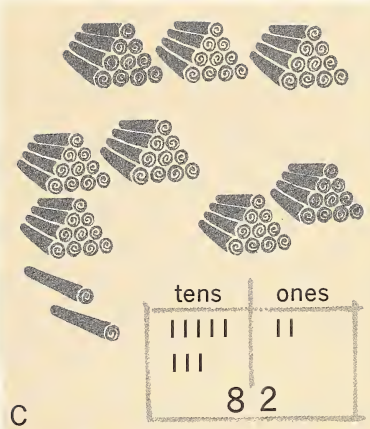
KEEPING SKILFUL
Additive action and subtractive action—sentences of the forms $3+2=$ ▒ and $6-4=$ ▒; sums and minuends through 10


tens
ones
II
IIIII
I
2 6

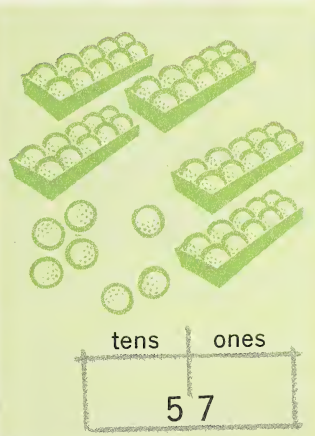
A


tens
ones
IIII
IIIII
III
4 8

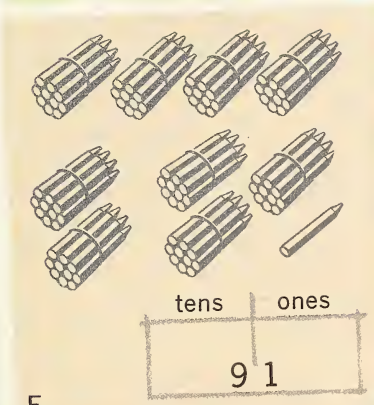
B


tens
ones
IIIII
III
II
8 2

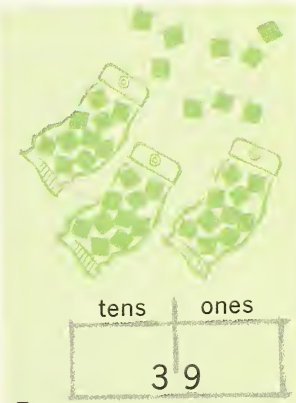
C


tens
ones
5 7

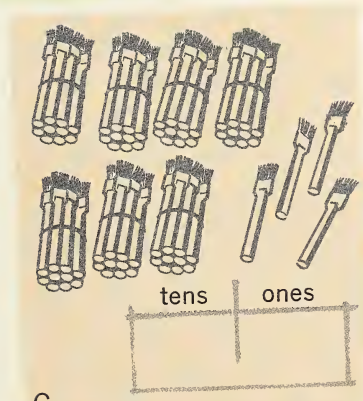
D


tens
ones
9 1

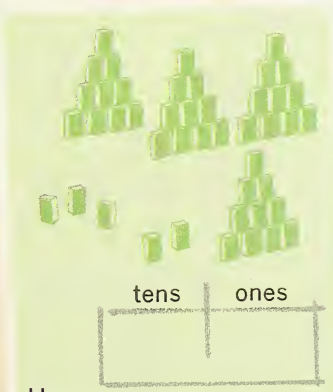
E


tens
ones
3 9

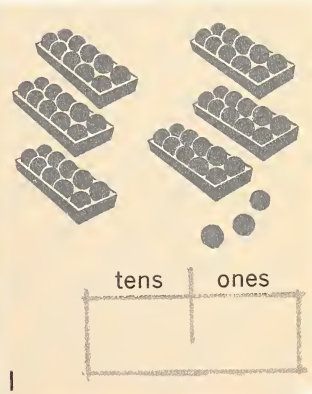
F


tens
ones

G


tens
ones

H


tens
ones

I

tens	ones
I	1 0

A 10

tens	ones
II	2 0

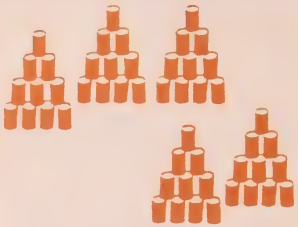
B 20

tens	ones
III	3 0

C 30

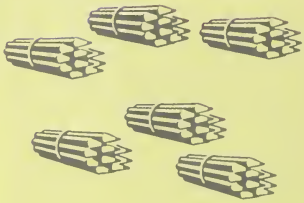
tens	ones
	4 0

D 40



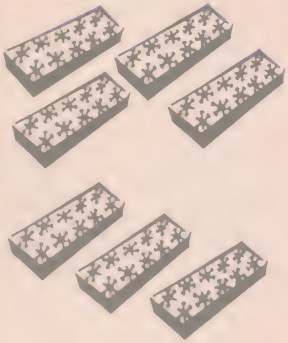
tens	ones
	5 0

E 50



tens	ones
	6 0

F 60



tens	ones
	7 0

G 70

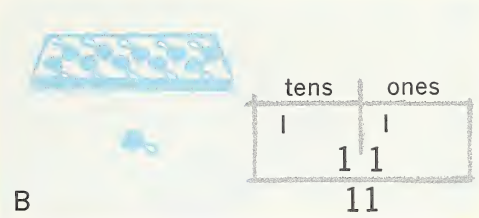
tens	ones
	8 0

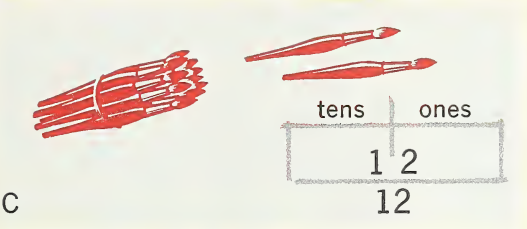
H 80

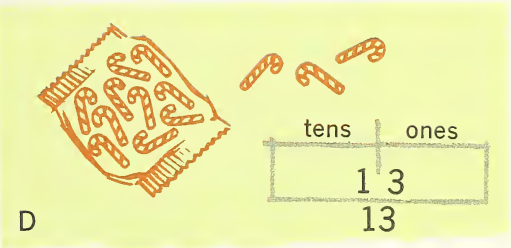
tens	ones
	9 0

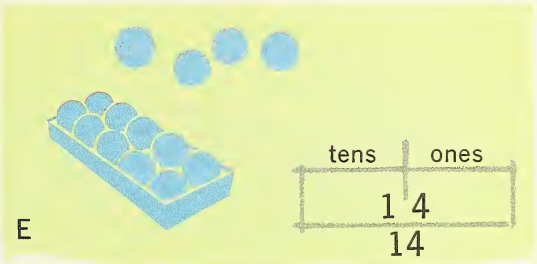
I 90

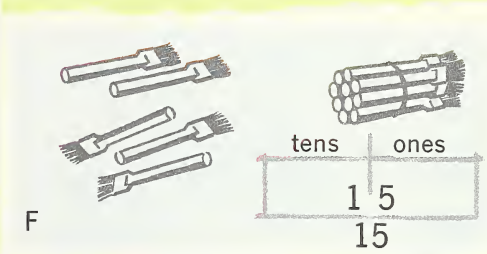
tens ones
1
1 0
10
A

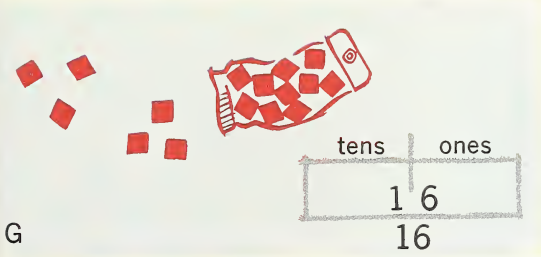

tens ones
1 1
11
B

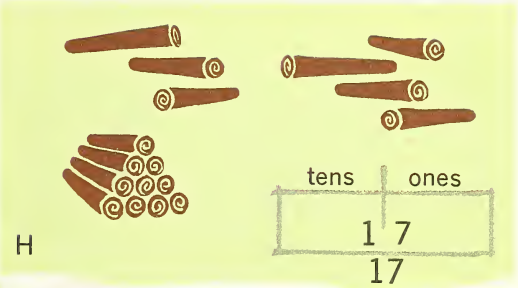

tens ones
1 2
12
C

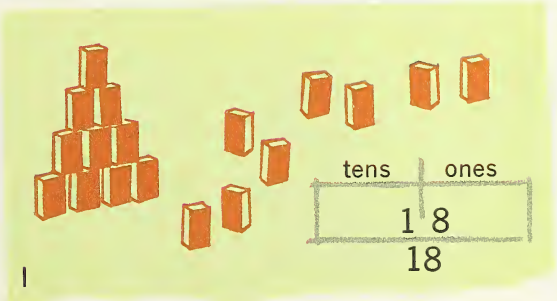

tens ones
1 3
13
D

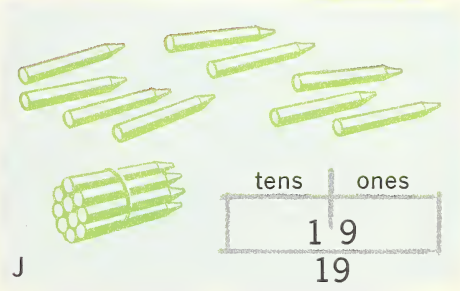

tens ones
1 4
14
E


tens ones
1 5
15
F


tens ones
1 6
16
G


tens ones
1 7
17
H


tens ones
1 8
18
I


tens ones
1 9
19
J

30
31
32
33
34
35
36
37
38
39

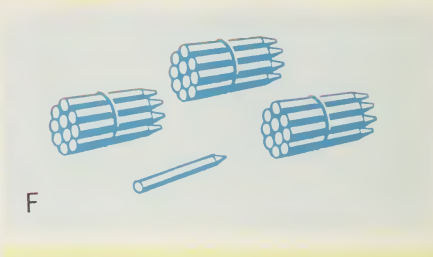
A

B

C

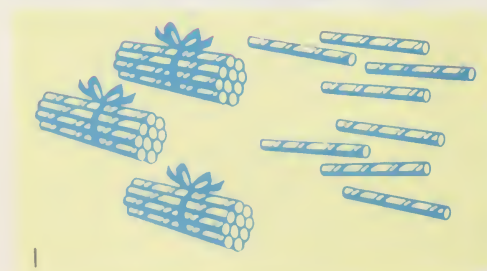
D

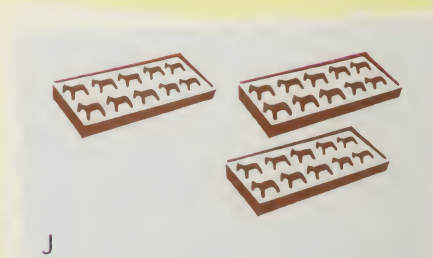
E

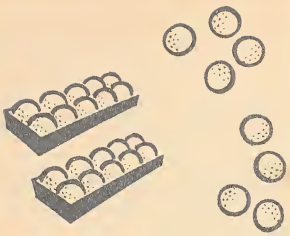

F

G

H


I

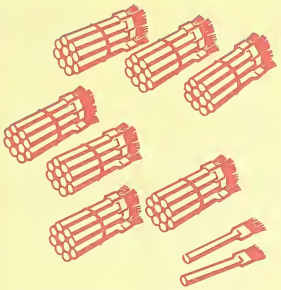

J



2 tens 8 ones

28

A



7 tens 2 ones

B

tens ones

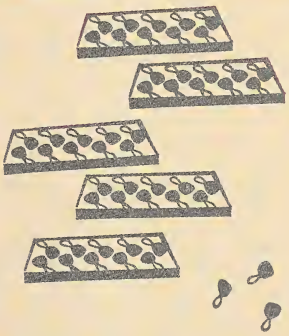
64

C

tens ones

46

D



tens ones

E

tens ones

F

A 5 tens 6 ones 56

B 7 tens 9 ones

C 2 tens 5 ones

D 3 tens 8 ones

E 8 tens 3 ones

F 4 tens 2 ones

G 5 tens 4 ones

H 9 tens 9 ones

I 6 tens 7 ones

J 7 tens 6 ones

K 9 tens 5 ones

L 3 tens 4 ones

A 27 2 tens 7 ones

B 63 6 tens ones

C 92 tens ones

D 35 tens ones

E 66 tens ones

F 94 tens ones

G 29 tens ones

H 47 tens ones

I 72 tens ones

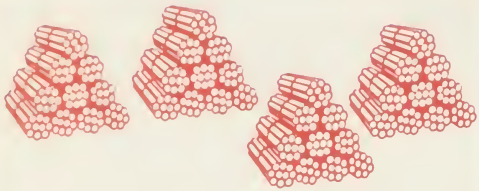
J 85 tens ones

K 58 tens ones

L 49 tens ones

10 20 30 40 50 60 70 80 90 one hundred 100

A

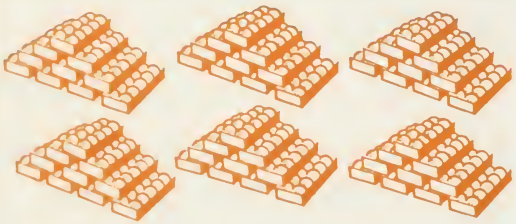


How many hundreds are there?

B

How many tens are there?

C



How many hundreds are there?

D

How many hundreds are there?

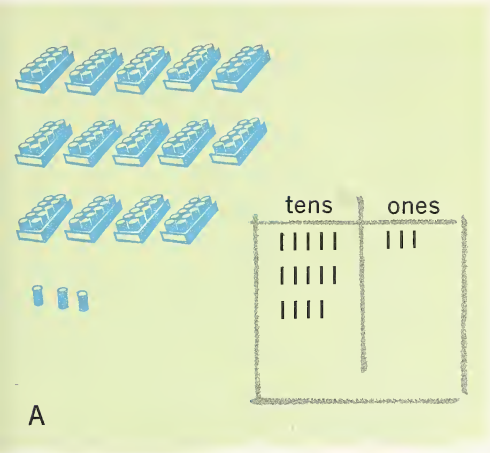
E

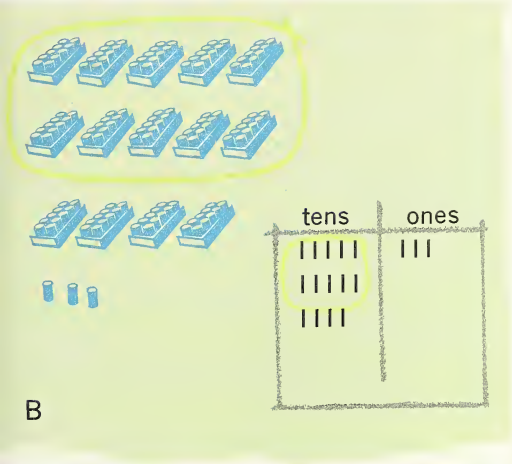
How many tens are there?

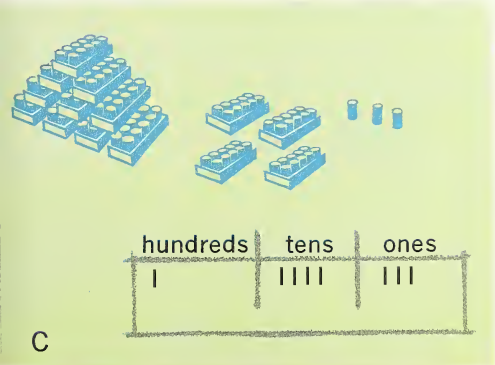
F

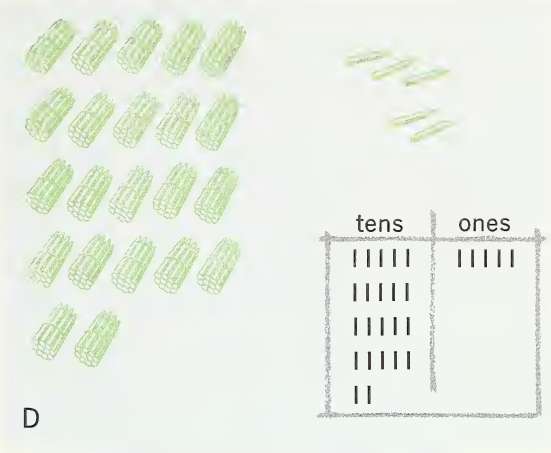
How many hundreds are there?

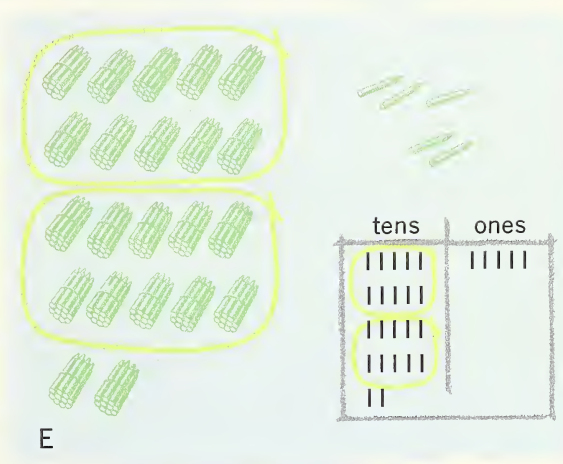
G

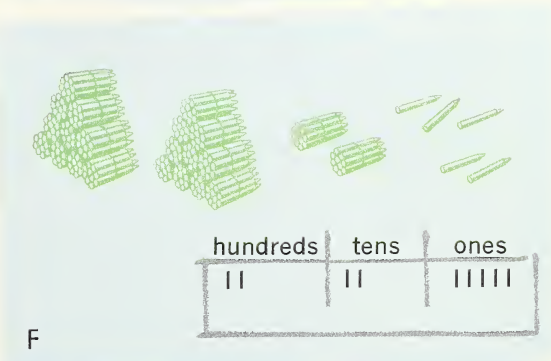

tens
ones
A

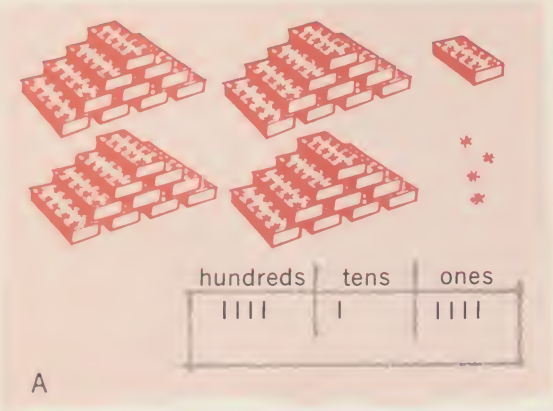

tens
ones
B

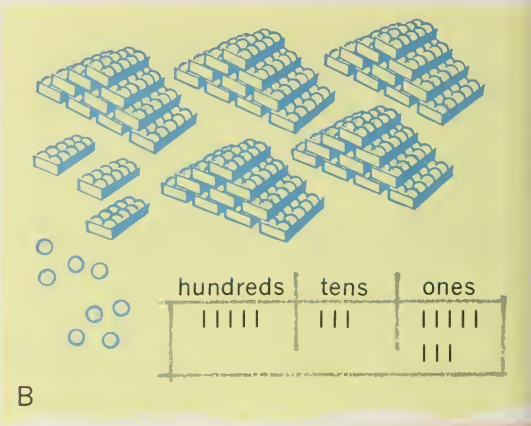

hundreds
tens
ones
C

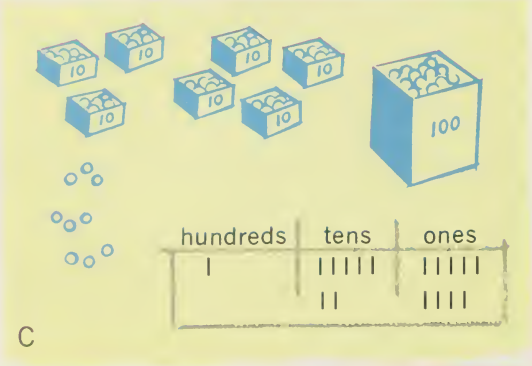

tens
ones
D

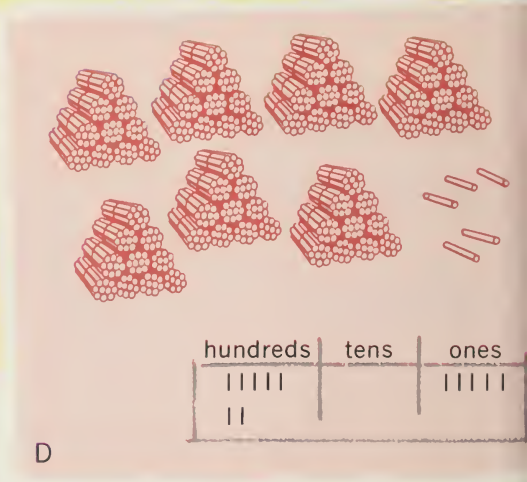

tens
ones
E

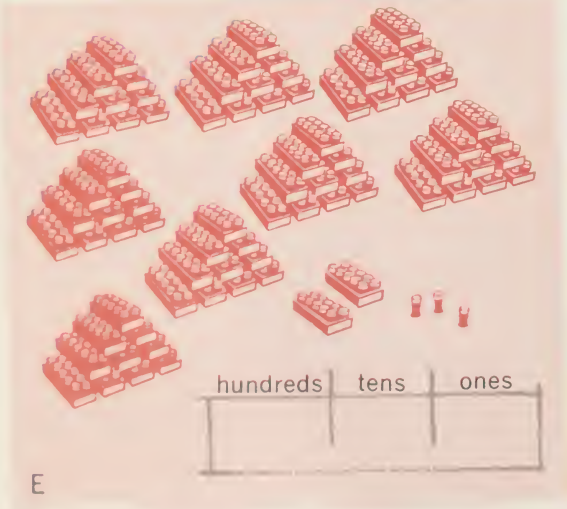

hundreds
tens
ones
F

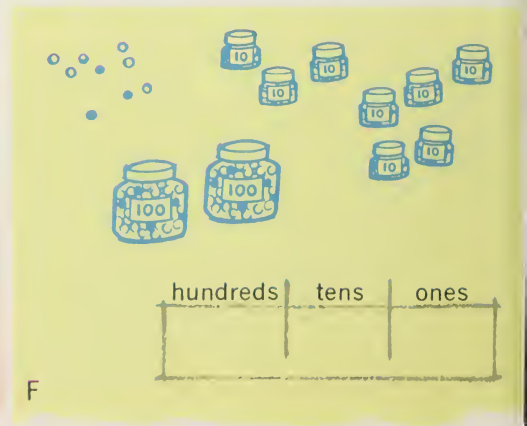

hundreds
tens
ones
A

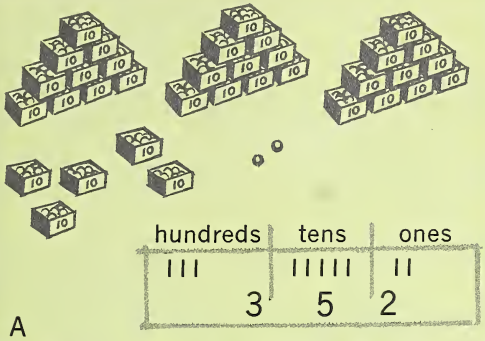

hundreds
tens
ones
B


10
100
hundreds
tens
ones
C

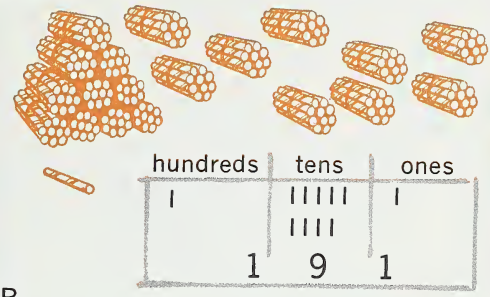

hundreds
tens
ones
D


hundreds
tens
ones
E

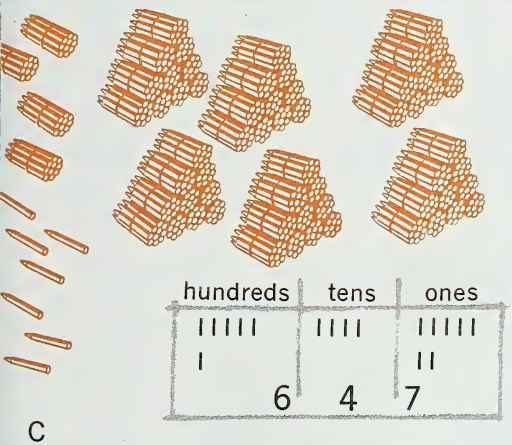

10
100
hundreds
tens
ones
F


hundreds
tens
ones
3 5 2

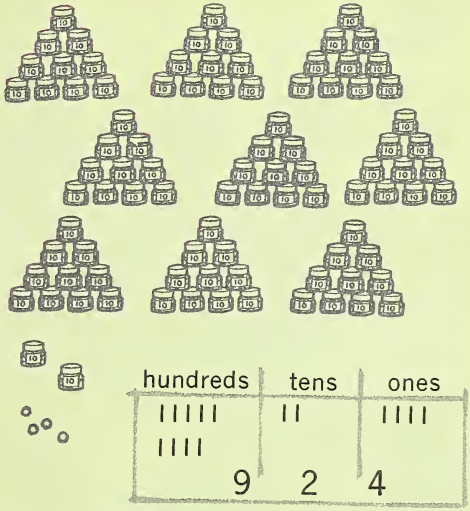
A


hundreds
tens
ones
1 9 1

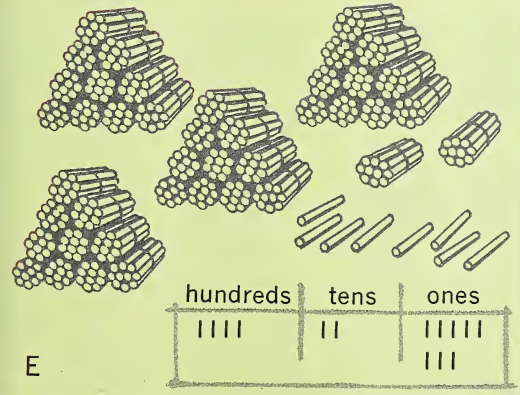
B


hundreds
tens
ones
6 4 7

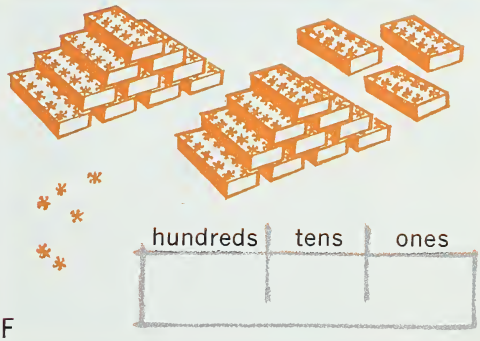
C


hundreds
tens
ones
9 2 4

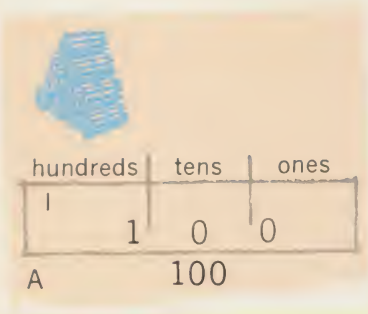
D


hundreds
tens
ones

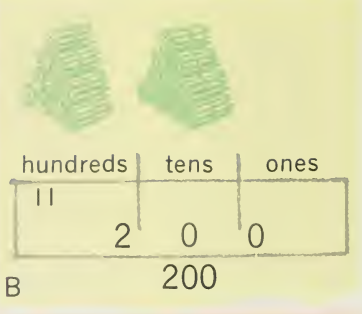
E


hundreds
tens
ones

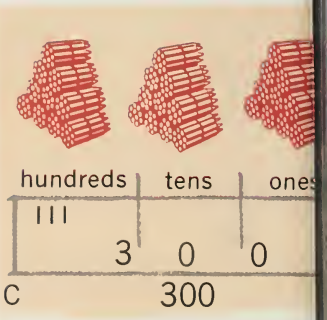
F



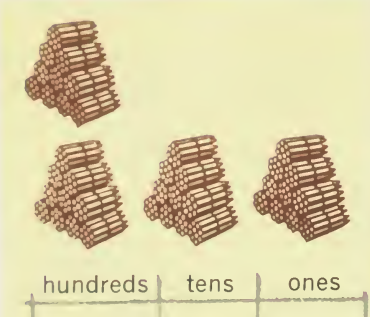
A 100



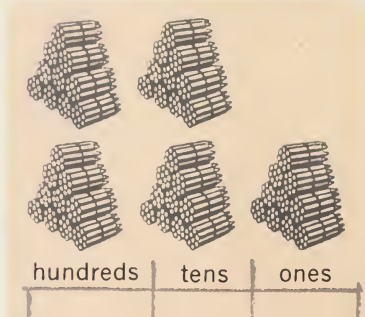
B 200



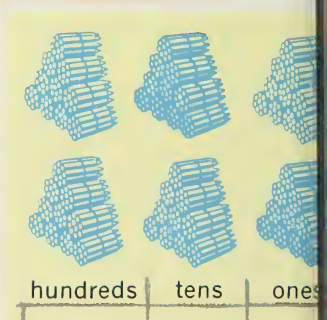
C 300



D 400

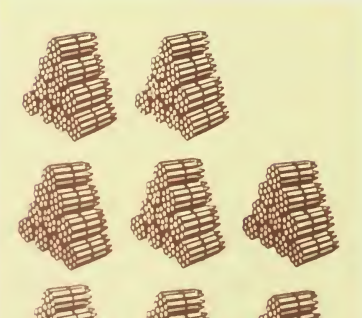


E 500



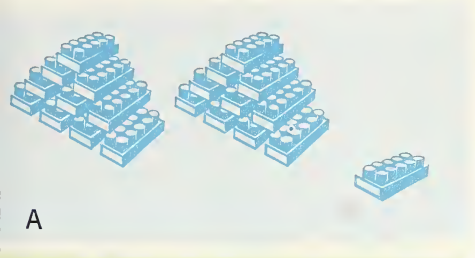
F 600

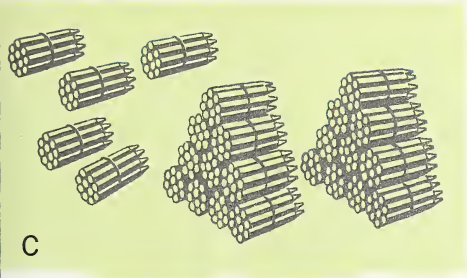
G 700

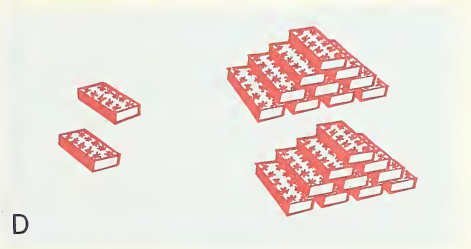


H 800

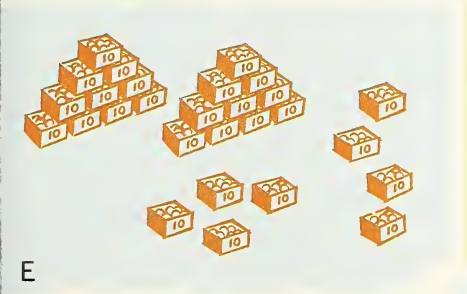
I 900

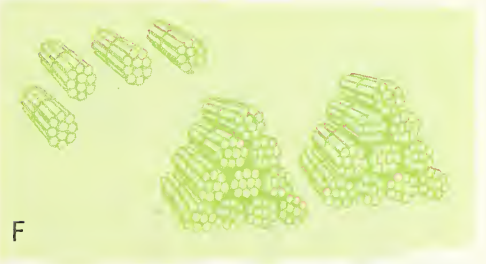


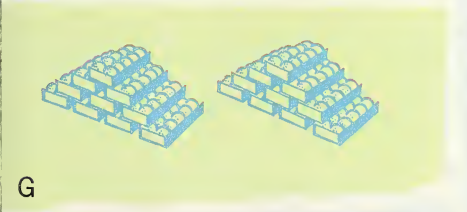


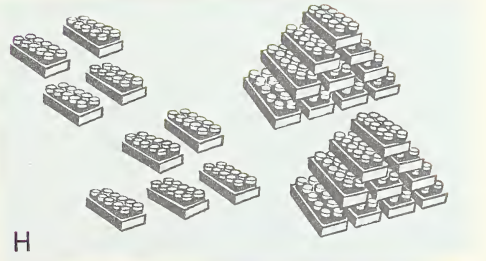


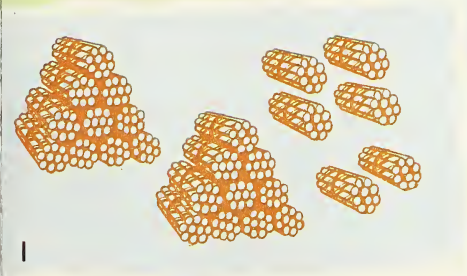
200
210
220
230
240
250
260
270
280
290

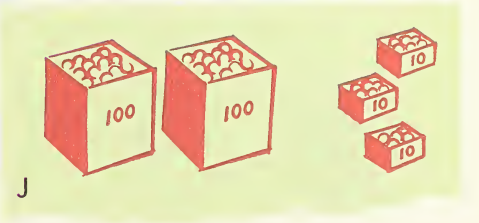


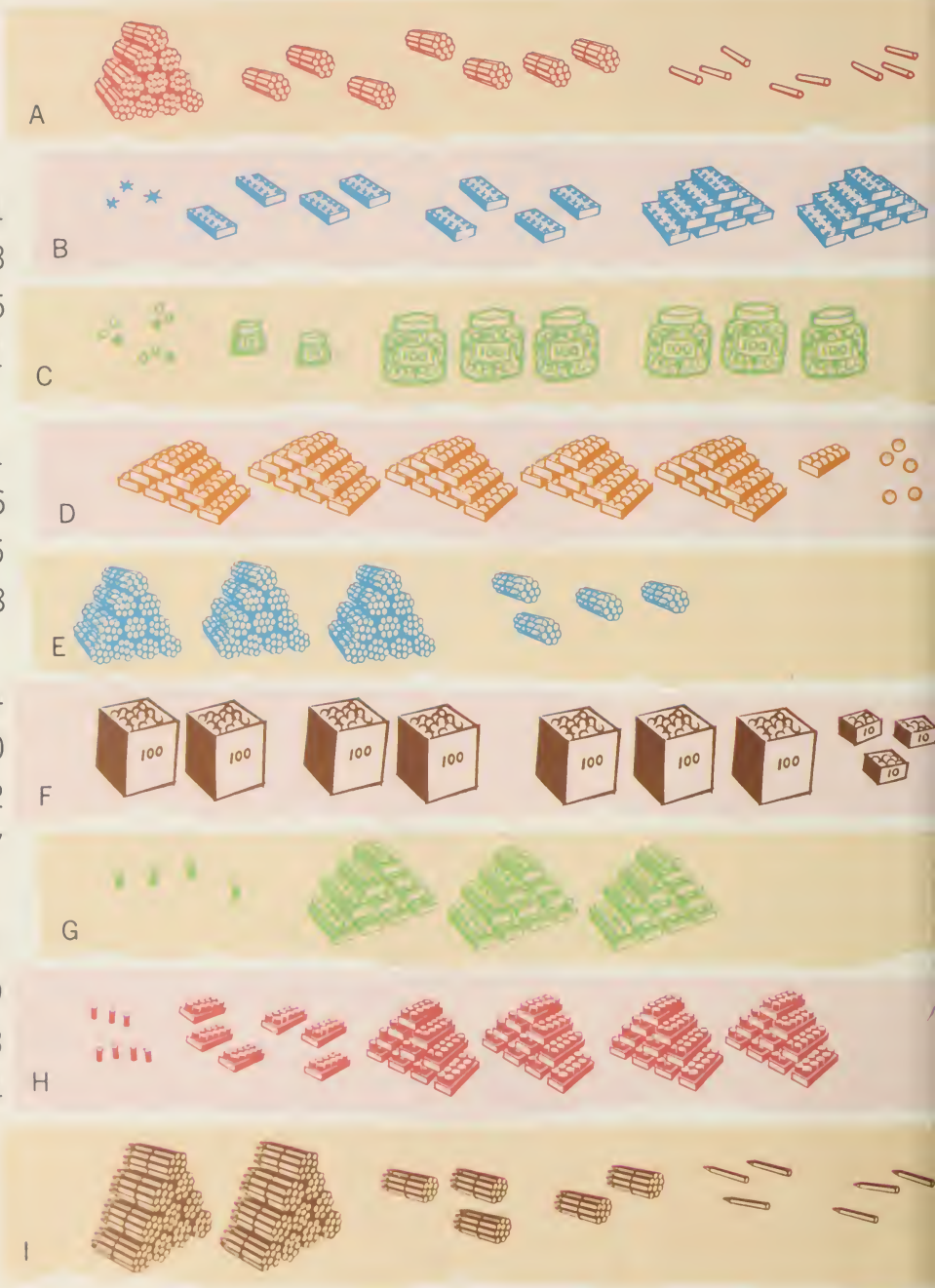




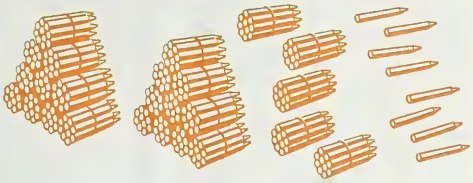






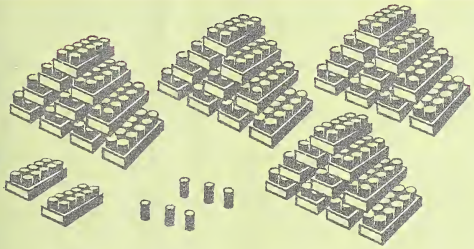


A 871
B 283
C 515
D 551
E 731
F 256
G 195
H 178
I 614
J 340
K 932
L 467
M 291
N 629
O 403
P 304



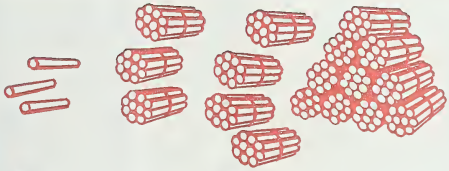
2 hundreds 5 tens 8 ones

A 258



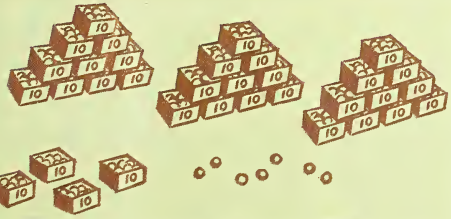
4 hundreds 2 tens 6 ones

B



hundreds tens 3 ones

C 173



hundreds 4 tens ones

D

A 7 hundreds 6 tens 9 ones 769

B 6 hundreds 7 tens 4 ones

C 5 hundreds 3 tens 5 ones

D 8 hundreds 1 ten 4 ones

E 4 hundreds 5 tens 8 ones

F 1 hundred 4 tens 7 ones

G 5 hundreds 9 tens 3 ones

H 6 hundreds 2 tens 1 one

I 7 hundreds 8 tens 7 ones

J 2 hundreds 4 tens 5 ones

K 3 hundreds 1 ten 8 ones

L 9 hundreds 2 tens 2 ones

A 695 6 hundreds 9 tens 5 ones

B 737 hundreds tens 7 ones

C 558 5 hundreds tens ones

D 379 hundreds 7 tens ones

E 943 hundreds 4 tens ones

F 286 hundreds tens 6 ones

G 826 hundreds tens 6 ones

H 328 3 hundreds tens ones

I 974 hundreds 7 tens ones

J 479 hundreds 7 tens ones

K 235 2 hundreds tens ones

L 867 hundreds tens 7 ones

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

30 31 32 33 34 35 36 37 38 39

52 53 54 55 56 57 58 59 60 61 62 63

76 77 78 79 80 81 82 83 84 85 86 87

100 101 102 103 104 105 106 107 108 109

120 121 122 123 124 125 126 127 128 129

140 141 142 143 144 145 146 147 148 149

160 161 162 163 164 165 166 167 168 169

180 181 182 183 184 185 186 187 188 189 190

A 5 10 15 20

B 50 55

C 125 130 135

D 360 365

E 10 20 30 40

F 60 70

G 140 150 160

H 420 430

I 25 50 75 100

J 100 125 150

K 150 175

L 90 95

M 80 90

N 50 75

O 400 425

P 275 300

17 18 19 20 21 22 23 24 25 26 27 28 29

40 41 42 43 44 45 46 47 48 49 50 51

64 65 66 67 68 69 70 71 72 73 74 75

88 89 90 91 92 93 94 95 96 97 98 99

110 111 112 113 114 115 116 117 118 119

130 131 132 133 134 135 136 137 138 139

150 151 152 153 154 155 156 157 158 159

170 171 172 173 174 175 176 177 178 179

191 192 193 194 195 196 197 198 199 200

A Begin with 5.
Count by fives to 60.

B Begin with 70.
Count by fives to 125.

C Begin with 10.
Count by tens to 90.

D Begin with 80.
Count by tens to 150.

E Begin with 115.
Count by fives to 200.

F Begin with 100.
Count by tens to 200.

G Begin with 430.
Count by tens to 520.

H Begin with 375.
Count by fives to 445.

A 23 is one greater than 22.
B 308 is one greater than ▢.
C 637 is one greater than ▢.
D ▢ is one greater than 142.
E ▢ is one greater than 576.
F ▢ is one greater than 289.

G 65 is one less than ▢.
H 811 is one less than ▢.
I 454 is one less than ▢.
J ▢ is one less than 89.
K ▢ is one less than 293.
L ▢ is one less than 765.

A 13 is between 12 and 14.
B ▢ is between 326 and 328.
C ▢ is between 804 and 806.
D ▢ is between 189 and 191.
E 652 is between ▢ and 653.
F 78 is between ▢ and 79.

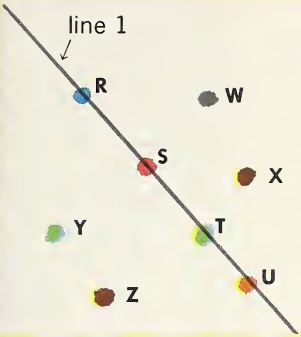
G 431 is between ▢ and 432.
H 746 is between ▢ and 747.
I 584 is between 583 and ▢.
J 117 is between 116 and ▢.
K 973 is between 972 and ▢.
L 269 is between 268 and ▢.

A 235 is one greater than ▢.
B 957 is one less than ▢.
C ▢ is between 683 and 685.
D ▢ is one greater than 707.
E 962 is one greater than ▢.
F 592 is between 591 and ▢.
G ▢ is one less than 377.

H ▢ is one less than 531.
I 341 is between ▢ and 342.
J 99 is between 98 and ▢.
K 694 is one less than ▢.
L ▢ is one greater than 825.
M 410 is one less than ▢.
N ▢ is between 899 and 901.

A 47 is greater than ▢.
B 100 is greater than ▢.
C 325 is greater than ▢.
D ▢ is greater than 18.
E ▢ is greater than 752.

F 264 is less than ▢.
G 583 is less than ▢.
H ▢ is less than 498.
I ▢ is less than 631.
J ▢ is less than 816.



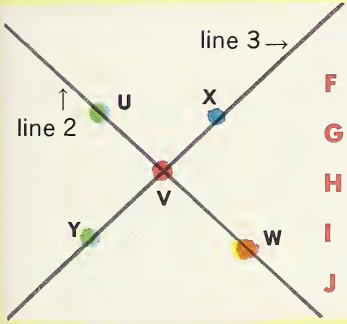
A Point R is in line 1. Name other points that are in line 1.

B Name points that are not in line 1.

C What point is between point R and point T?

D What point is between point S and point U?

E Name segments that are in line 1.



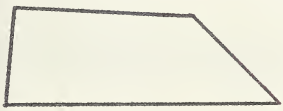
F Name points that are in line 2.

G Name points that are in line 3.

H Name the point that is in line 2 and line 3.

I Name segments that are in line 2.

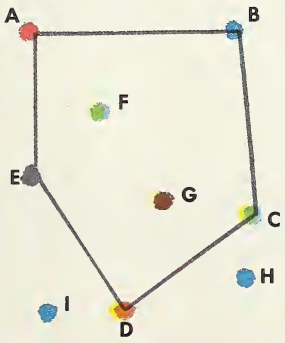
J Name segments that are in line 3.



polygon

K This polygon is made up of ▒ segments.

L Each segment is a side of the polygon. This polygon has ▒ sides.



M This polygon is made up of ▒ segments.

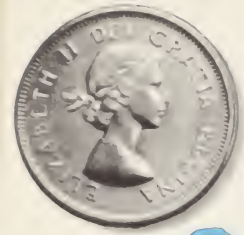
N Name the segments that make up the polygon.

O This polygon has ▒ sides.

P Side AB is one side of the polygon. Name the other sides of the polygon.

Q Name points that are inside the polygon.

R Name points that are outside the polygon.



cent
penny
1

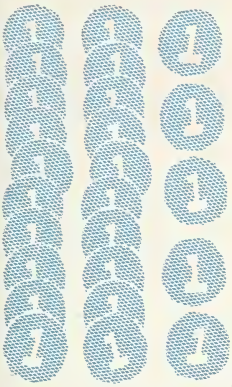
nickel
5

dime
10

quarter dollar
quarter
25

half dollar
50

dollar
1


25
tens
ones

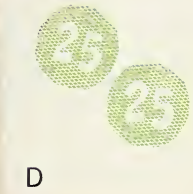
A

25
tens
ones

B

25
tens
ones

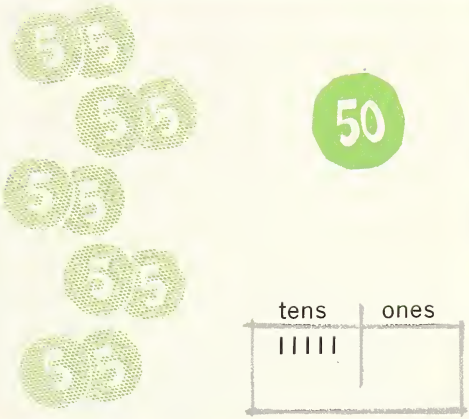
C


50
tens
ones

D

50
tens
ones

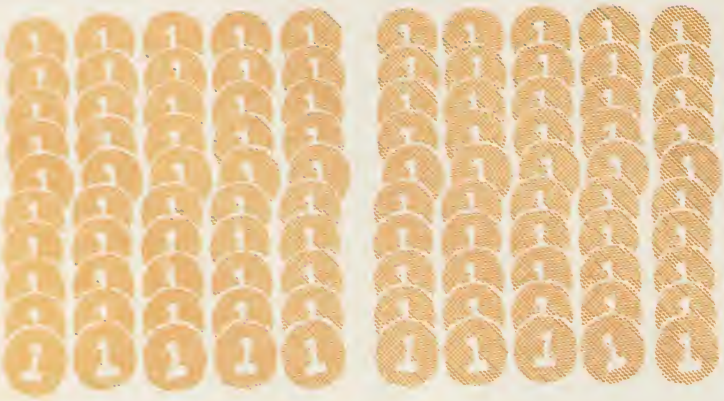
E


50
tens
ones

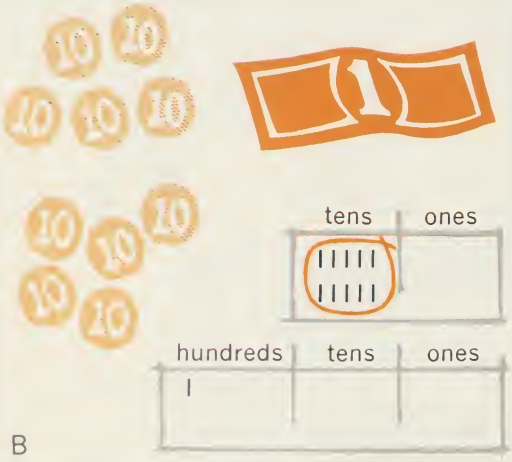
F

50
tens
ones

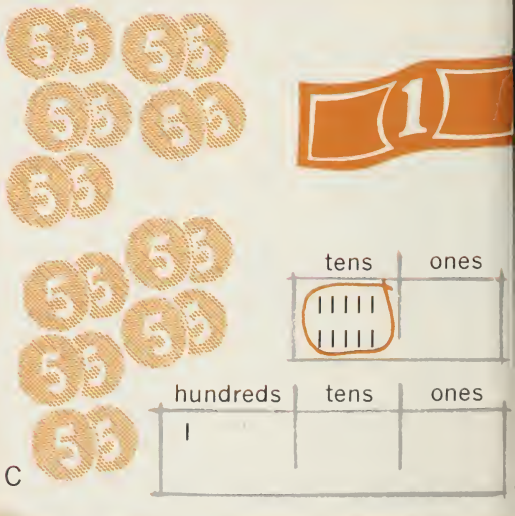
G


1
tens
ones
hundreds
tens
ones
1

A


10
1
tens
ones
hundreds
tens
ones
1

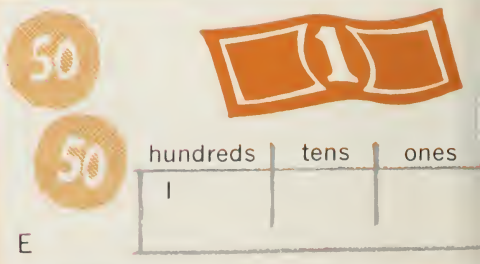
B


5
1
tens
ones
hundreds
tens
ones
1

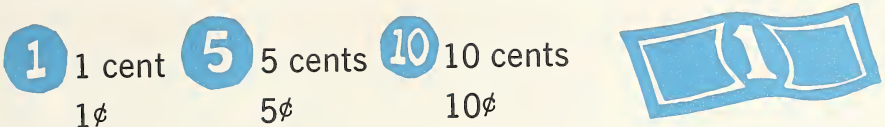
C

25
hundreds
tens
ones
1

D


50
1
hundreds
tens
ones

E



1 cent
1¢

5 cents
5¢

10 cents
10¢

25 cents
25¢

50 cents
50¢

100 cents
100¢
1 dollar
$1

A

10 20 30 31 32 cents
32¢

B

25 50 60 70 75 cents
75¢

C

50 60 ▭ ▭ ▭¢

D

25 50 ▭ ▭ ▭ ▭¢

E

50 ▭ ▭ ▭ ▭ ▭¢

F

50 ▭ ▭ ▭ cents

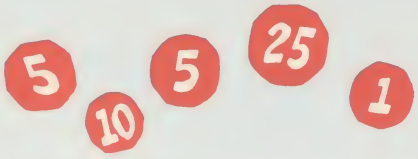
G

▭ cents

H

▭ cents

I


5
10
5
25
1

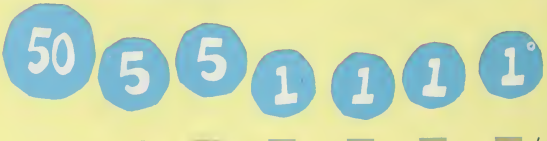
A

25
10
5
5
1
25
35
40
45
46 cents

B

1
5
5
1
1
1
50

C


50
5
5
1
1
1
1
50
55
¢

D

5
25
1
5
10
1
10
1

E

25
10
10
5
5
1
1
1
25
¢

F

25
10
5
10
25
5

G

25
25
10
10
5
5
cents

H

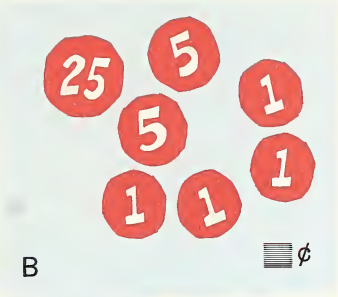
25
10
50
5
5
5

I

50
25
10
5
5
5
cents

J

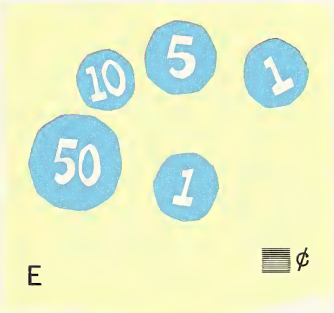
A



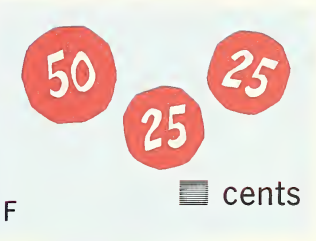
B

C

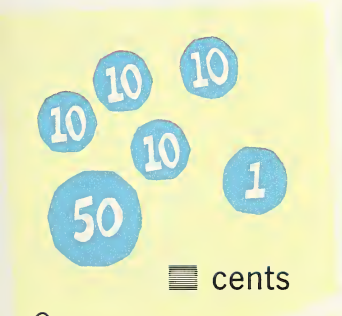
D



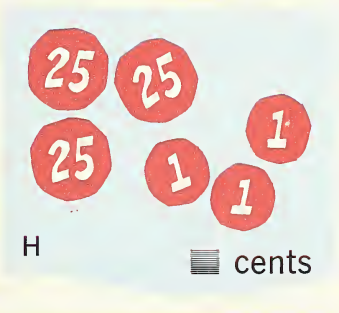
E



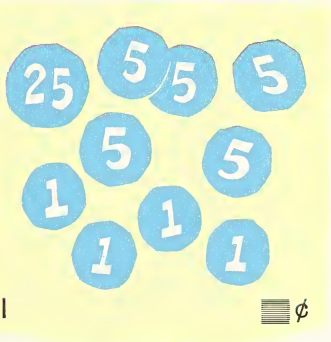
F



G

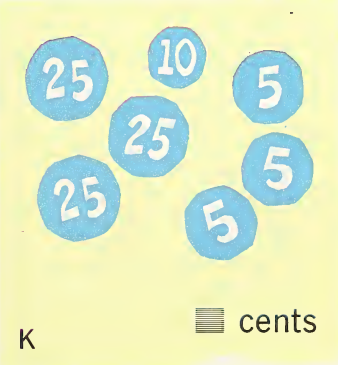


H

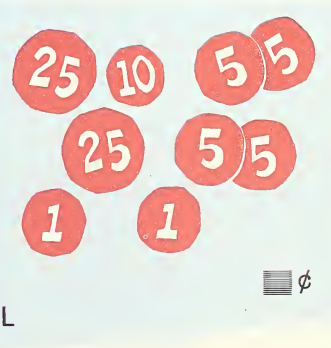


I

J



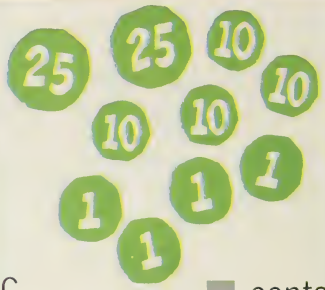
K



L

A ___¢

B ___ cents



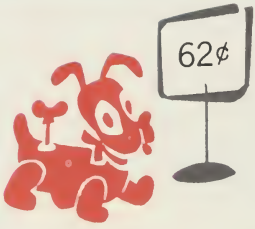
C ___ cents

D ___ cents

E ___¢

F ___¢

G



H

I

J

K

L

25
12¢

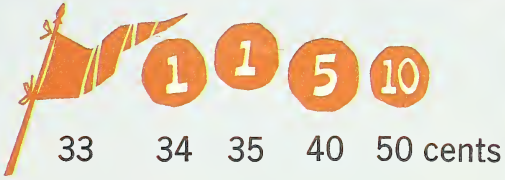
A

1
1
1
10
12
13
14
15
25¢

B

50
33¢

C


1
1
5
10
33
34
35
40
50 cents

D

1
64¢

E

1
10
25
64
65
dollar

F

25
50
57¢

G

1
1
1
10
5
57
¢

H

25
10
50
10
86¢

I

1
1
1
1
5
¢

J

25
19¢
A

1
1
5
1
1
5
B

50
32¢
C

1
1
1
1
1
10
10
5
5
D

1
78¢
E

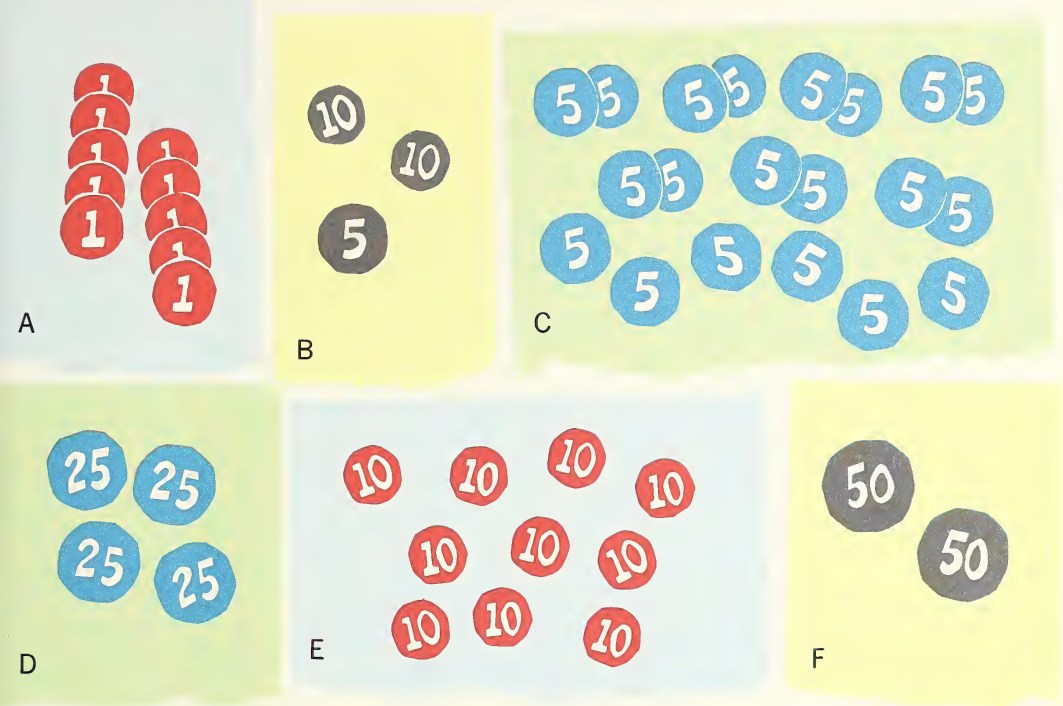
5
5
1
1
25
5
1
10
F

25
25
25
53¢
G

10
10
1
5
10
1
1
5
1
H

1
40¢
I

5
10
25
5
10
10
25
J



A 1 nickel will buy as much as ▭ cents. 1 nickel has a value of 5 cents.

B 1 dollar will buy as much as ▭ cents. 1 dollar has a value of ▭ cents.

C 1 half dollar will buy as much as ▭ cents. 1 half dollar has a value of ▭ cents.

D 1 ▭ has a value of 1 cent.

E 1 ▭ has a value of 25 cents.

F 1 dime has a value of ▭ cents.

G 1 ▭ has a value of 50 cents.

H 1 quarter dollar has a value of ▭ cents.

I 1 ▭ has a value of 10 cents.

J 1 nickel has a value of ▭ cents.

K 1 half dollar has a value of ▭ cents.

L 1 ▭ has a value of 100 cents.

M 1 dime has the same value as ▭ nickels.

A Ann had 7 books.
She was given 2 new books.
How many books did Ann have then?

B 7 dogs were in the yard.
6 of the dogs ran away.
Then how many dogs were in the yard?

C Tim bought 4 toy cars.
He gave 2 of them to his brother.
How many toy cars did Tim have left?

D Sue had 1 dime.
Her father gave her 3 more dimes.
How many dimes did Sue have then?

E 2 blocks were on a shelf.
Bill put 8 other blocks with them.
Then how many blocks were on the shelf?

F 9 boys were fishing.
6 of the boys went home.
Then how many boys were fishing?

G Jane had 3 toy animals.
She bought 5 new toy animals.
How many toy animals did Jane have then?

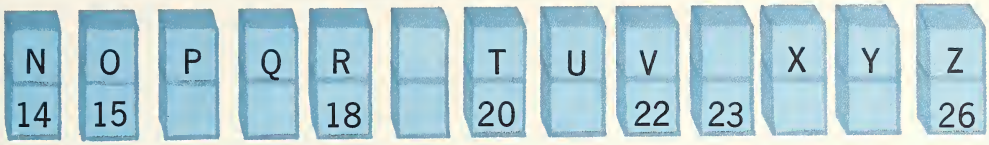
H 10 tops were in a box.
Pete took 7 tops out of the box.
How many tops were left in the box?

A $2+8=$ ■
B $1+3=$ ■
C $9-4=$ ■
D $10-7=$ ■
E $7+2=$ ■
F $3+5=$ ■
G $10-4=$ ■
H $7-6=$ ■
I $8+2=$ ■
J $9-6=$ ■
K $4-2=$ ■
L $2+7=$ ■

A $4+4=$ ■
B $9-7=$ ■
C $7-1=$ ■
D $10-2=$ ■
E $1+6=$ ■
F $4+5=$ ■
G $8-7=$ ■
H $5+2=$ ■
I $10-6=$ ■
J $6+2=$ ■
K $4+3=$ ■
L $9-2=$ ■
M $7-5=$ ■

A
1
2
4
6
7
9
10
B
10
8
5
3
2
1
C
10
7
6
3
1
D
2
3
9
E
11
13
16
17
19
F
24
22
20
19
17
G
11
12
15
18
H
25
22
21
19
I
34
32
30
27

ORDINAL USE OF THE COUNTING NUMBERS
Use of a pair of numbers to indicate position



A row 4, box 5
B row 7, box 8
C row 9, box 7
D row 3, box 2
E row 10, box 10
F row 5, box 7
G row 6, box 5
H row 1, box 10

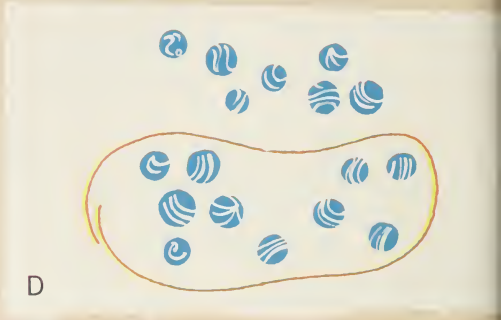
A row 14, box 7
B row 17, box 6
C row 20, box 3
D row 12, box 5
E row 15, box 4
F row 13, box 10
G row 19, box 2
H row 11, box 1

A chicken, row ▬ box ●
B bell, row ▬ box ●
C dog, row ▬ box ●
D horse, row ▬ box ●
E pig, row ▬ box ●
F doll, row ▬ box ●
G chair, row ▬ box ●
H rabbit, row ▬ box ●

A

B

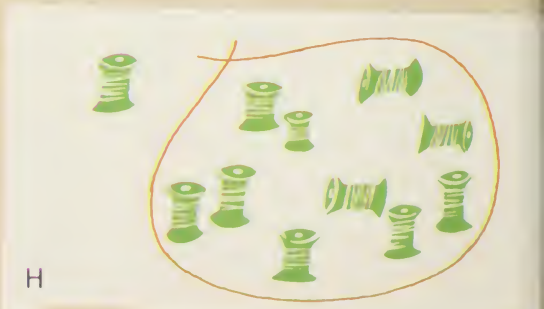
C

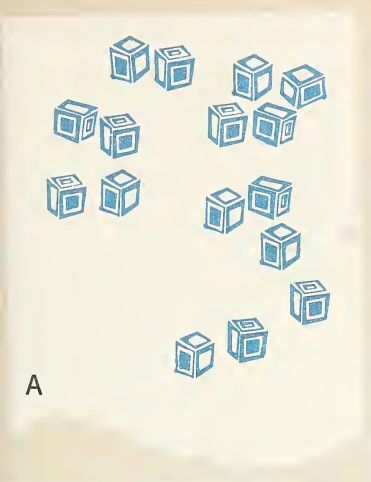

D

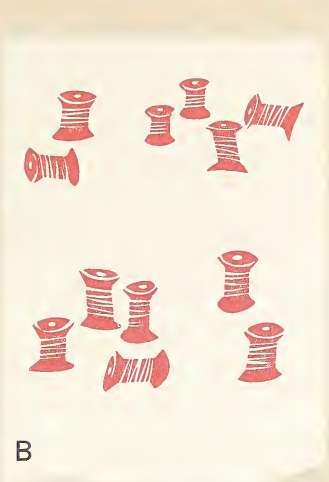
E

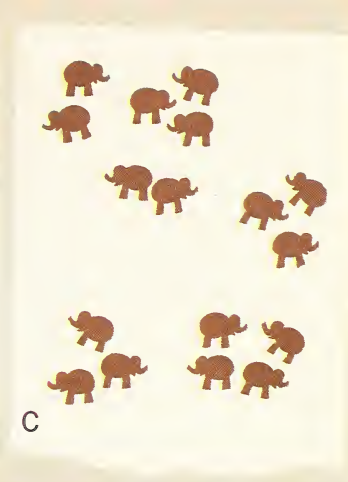
F

G


H


A


B


C

D

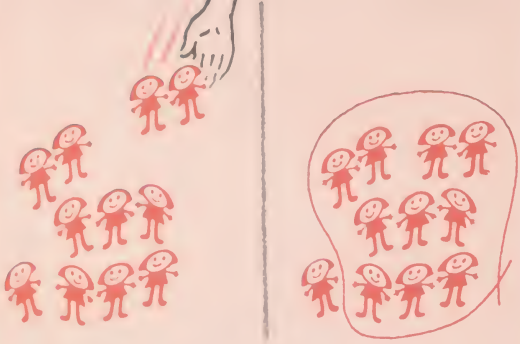
E

F

G

H

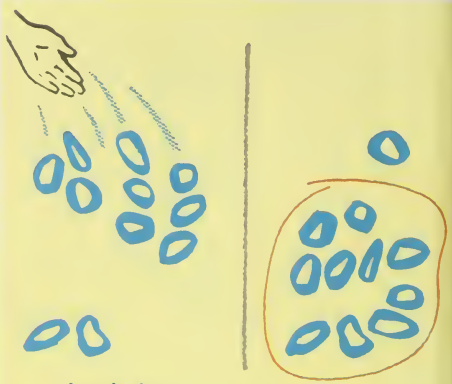
I



Ann had 9 dolls.
She was given 2 dolls
for her birthday.
Then Ann had how many dolls?

$9+2=\square$

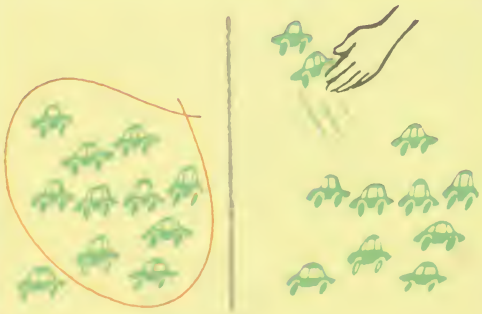
A $9+2=11$



Jack had 2 stones.
He found 9 more stones.
How many stones
did Jack have then?

$2+9=\square$

B $2+9=11$



Bill had 11 toy cars.
He gave 2 of them to Tom.
How many toy cars
did Bill have left?

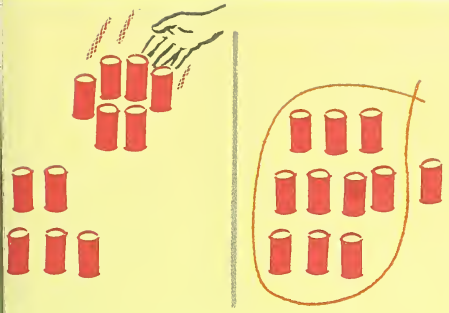
$11-2=\square$

C $11-2=9$

11 birds were in the yard.
9 of them flew away.
How many birds
were in the yard then?

$11-9=\square$

D $11-9=2$



cans were on a shelf.
im put 6 more cans with them.
low many cans
were on the shelf then?

A

$5+6=\square$

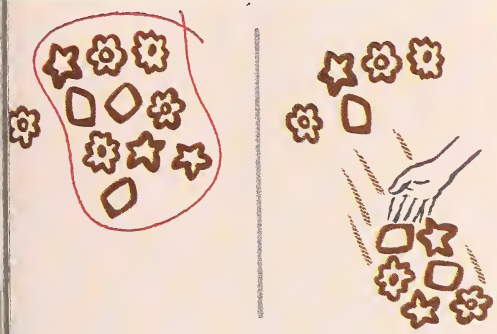
$5+6=11$

6 turtles were in a pond.
5 turtles came to join them.
Then how many turtles
were in the pond?

B

$6+5=\square$

$6+5=11$



11 cookies were on a plate.
Mother gave 6 of them to Bob.
Then how many cookies
were on the plate?

C

$11-6=\square$

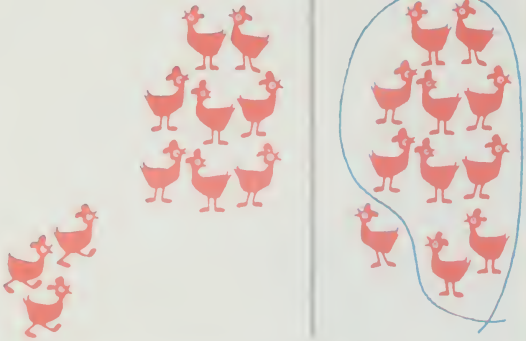
$11-6=5$

11 tops were in a box.
Sally took 5 of them away.
How many tops
were in the box then?

D

$11-5=\square$

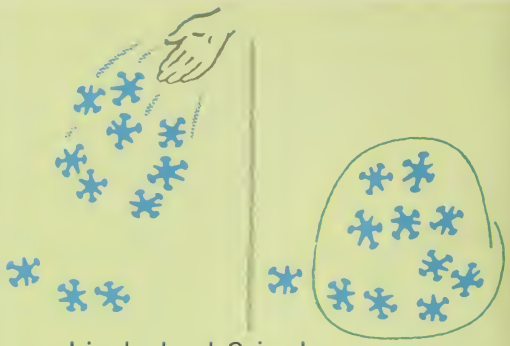
$11-5=6$



8 chickens were in the yard.
3 chickens came to join them.
Then how many chickens
were in the yard?

$8+3=\square$

A $8+3=11$



Linda had 3 jacks.
She found 8 other jacks.
How many jacks
did Linda have then?

$3+8=\square$

B $3+8=11$

11 balls were on the shelf.
3 of them fell off the shelf.
How many balls
were left on the shelf?

$11-3=\square$

C $11-3=8$

11 ducks were eating.
8 of them went away.
Then how many ducks
were eating?

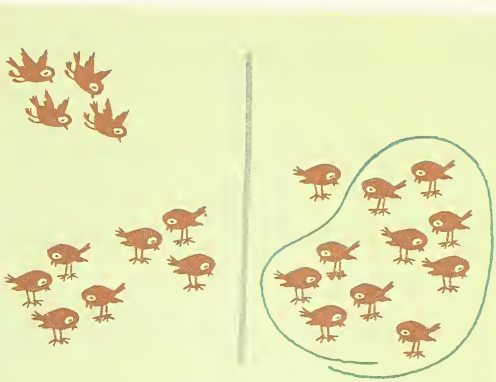
$11-8=\square$

D $11-8=3$

4 toy horns were on the table.
Dick put 7 new horns with them.
Then how many toy horns
were on the table?

A $4+7=\blacksquare$

$4+7=11$



7 birds were in the yard.
4 birds flew to join them.
How many birds
were in the yard then?

B $7+4=\blacksquare$

$7+4=11$

Jim had 11 books at home.
He took 7 of them to school.
How many books
did Jim leave at home?

C $11-7=\blacksquare$

$11-7=4$

11 toy bears were in a box.
Jane took 4 of them away.
How many toy bears
were left in the box?

D $11-4=\blacksquare$

$11-4=7$

A John had 8 blocks.
His brother gave him 3 more blocks.
How many blocks did John have then?

B 11 apples were in a basket.
Patty took 7 of them.
Then how many apples were in the basket?

C Mr. Green had 10 puppies to sell.
He sold 2 of the puppies.
How many puppies did Mr. Green have left to sell?

D 2 crows were in a field.
9 crows flew to join them.
Then how many crows were in the field?

E 6 doll chairs were in the dollhouse.
Jane put 5 new chairs with them.
How many doll chairs were in the dollhouse then?

F 11 cows were in the barnyard.
2 of the cows went into the barn.
Then how many cows were in the barnyard?

G Bill had 6 toy firemen.
He bought 3 more.
How many toy firemen did Bill have then?

H Linda picked 11 flowers.
She gave 5 of them to her mother.
How many flowers did Linda have left?

A $11-5=$ ▢
B $10-2=$ ▢
C $9+2=$ ▢
D $6+5=$ ▢
E $11-7=$ ▢
F $3+7=$ ▢
G $11-2=$ ▢
H $8+3=$ ▢
I $3+6=$ ▢
J $10-6=$ ▢
K $2+9=$ ▢
L $6+3=$ ▢

A $7+4=$ ▢
B $11-9=$ ▢
C $3+8=$ ▢
D $10-4=$ ▢
E $11-6=$ ▢
F $8+2=$ ▢
G $4+7=$ ▢
H $5+5=$ ▢
I $11-3=$ ▢
J $10-8=$ ▢
K $5+6=$ ▢
L $11-8=$ ▢
M $11-4=$ ▢

A 9 plates were on the table.
Sally put 1 more plate on the table.
How many plates were on the table then?

B Nancy had 4 party hats.
She made 7 new party hats.
How many party hats did Nancy have then?

C Pete had 11 pictures of cars.
He gave 3 of the pictures to Dick.
Then Pete had how many pictures of cars?

D 11 balls were in a box.
Bob took 6 of them out of the box.
How many balls were left in the box?

E 9 toy clowns were on a shelf.
Tom put 2 other clowns with them.
Then how many toy clowns were on the shelf?

F 9 toy horns were on the table.
Susan put 8 of the horns on a shelf.
How many toy horns were left on the table?

G Ann had 5 shells.
She found 6 new shells.
How many shells did Ann have then?

H Tim had 11 dimes.
He used 4 of the dimes to buy a book.
Then Tim had how many dimes?

A $11-3=$ ▢
B $5+6=$ ▢
C $9-8=$ ▢
D $4+6=$ ▢
E $11-8=$ ▢
F $4+7=$ ▢
G $11-6=$ ▢
H $6+5=$ ▢
I $9+1=$ ▢
J $9-6=$ ▢
K $11-4=$ ▢
L $9+2=$ ▢

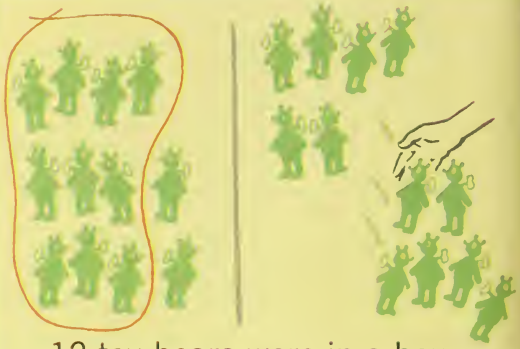
A $9-3=$ ▢
B $11-2=$ ▢
C $3+8=$ ▢
D $7+3=$ ▢
E $11-7=$ ▢
F $2+6=$ ▢
G $7+4=$ ▢
H $5+3=$ ▢
I $11-5=$ ▢
J $2+9=$ ▢
K $8-5=$ ▢
L $8+3=$ ▢
M $11-9=$ ▢

KEEPING SKILFUL
Additive action and subtractive action—sentences of the forms $3+2=$ ▢ and $6-4=$ ▢; sums and minuends through 11

Tim had 6 apples.
He picked 6 more apples.
How many apples
did Tim have then?

$6+6=\square$

A $6+6=12$



12 toy bears were in a box.
Ann took 6 of them away.
How many toy bears
were left in the box?

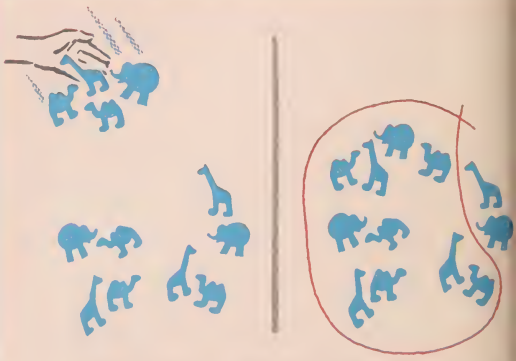
$12-6=\square$

B $12-6=6$

4 toy cars were on the table.
Bob put 8 new cars with them.
Then how many toy cars
were on the table?

$4+8=\square$

C $4+8=12$



Sally had 8 toy animals.
She bought 4 more.
How many toy animals
did Sally have then?

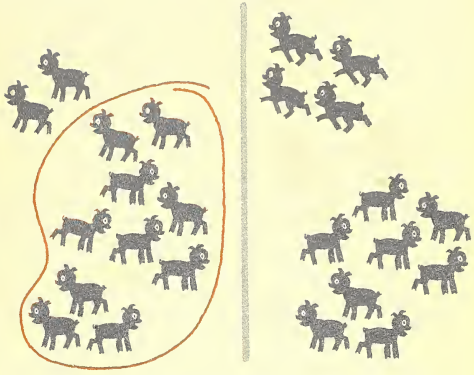
$8+4=\square$

D $8+4=12$

Mr. Stone had 12 tops to sell.
He sold 8 of them.
How many tops
did he have left to sell?

A $12-8=\square$

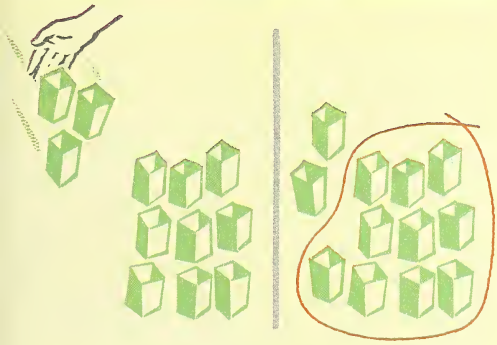
$12-8=4$



12 pigs were in the barnyard.
4 of them left the barnyard.
Then how many pigs
were in the barnyard?

B $12-4=\square$

$12-4=8$



9 boxes were on the shelf.
Tom put 3 more boxes with them.
Then how many boxes
were on the shelf?

C $9+3=\square$

$9+3=12$

Patty had 3 shells.
She found 9 more shells.
How many shells
did Patty have then?

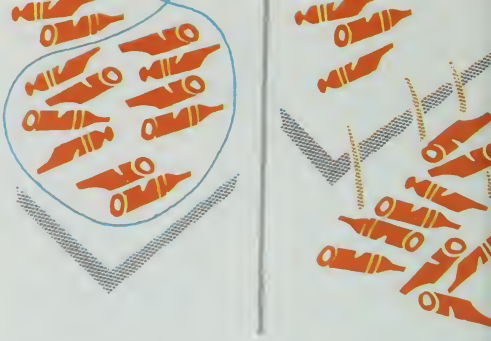
D $3+9=\square$

$3+9=12$

Jane had 12 toy horns.
She gave 3 of them to Linda.
Then Jane had
how many toy horns?

$12-3=\blacksquare$

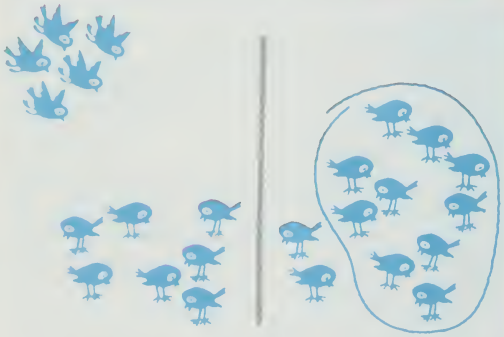
A $12-3=9$



12 whistles were on the table.
9 of the whistles fell off.
Then how many whistles
were on the table?

$12-9=\blacksquare$

B $12-9=3$



7 birds were in the garden.
5 birds flew to join them.
Then how many birds
were in the garden?

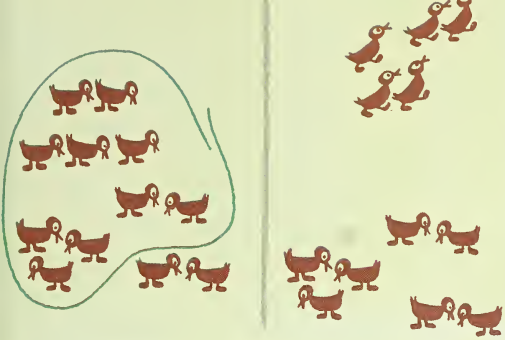
$7+5=\blacksquare$

C $7+5=12$

Jim had 5 pennies.
Father gave him 7 more pennies.
How many pennies
did Jim have then?

$5+7=\blacksquare$

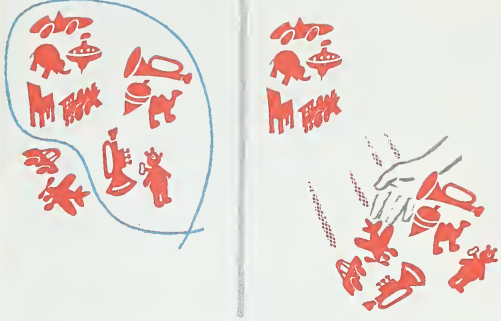
D $5+7=12$



12 ducks were in the pond.
5 of them left the pond.
How many ducks
were in the pond then?

$12-5=\square$

A $12-5=7$



12 toys were in a box.
Jack took 7 of the toys away.
How many toys
were left in the box?

$12-7=\square$

B $12-7=5$

A Susan had 3 shells.
Nancy gave her 9 shells.
How many shells did Susan have then?

B 11 horses were in a field.
8 of them went into the barn.
How many horses were in the field then?

C Mrs. Brown had 12 dresses to sell.
She sold 6 of them.
Then she had how many dresses to sell?

D 4 whistles were in a box.
Tom put 8 other whistles into the box.
Then how many whistles were in the box?

A $12-4=\square$
B $6+6=\square$
C $11-4=\square$
D $3+9=\square$
E $5+6=\square$
F $4+8=\square$
G $12-5=\square$
H $9+3=\square$
I $11-8=\square$
J $8+4=\square$
K $4+7=\square$
L $12-6=\square$

E Mr. Ball had 7 ponies.
He bought 5 more ponies.
How many ponies did Mr. Ball have then?

F Nancy had 12 pieces of candy.
She gave 3 of the pieces to Jane.
How many pieces of candy did Nancy have left?

G 4 crows were in a tree.
5 other crows came to join them.
Then how many crows were in the tree?

H Linda had 6 doll hats.
She made 6 new doll hats.
How many doll hats did Linda have then?

I 12 boys were flying kites.
9 of the boys went home.
Then how many boys were flying kites?

J John had 12 books at home.
He took 4 of them to school.
How many books did he leave at home?

K Bill had 3 toy firemen.
He was given 7 firemen for his birthday.
Then Bill had how many toy firemen?

L 12 plates were on a shelf.
Ann put 7 of the plates on the table.
Then how many plates were on the shelf?

A $6+6=$ ■
B $5+7=$ ■
C $12-3=$ ■
D $3+7=$ ■
E $10-5=$ ■
F $12-9=$ ■
G $7+2=$ ■
H $7+5=$ ■
I $10-3=$ ■
J $12-7=$ ■
K $4+5=$ ■
L $12-4=$ ■

A $3+9=$ ■
B $11-3=$ ■
C $12-8=$ ■
D $2+9=$ ■
E $8+4=$ ■
F $11-7=$ ■
G $12-5=$ ■
H $6+4=$ ■
I $4+8=$ ■
J $9+3=$ ■
K $2+8=$ ■
L $12-6=$ ■
M $7+4=$ ■

Tom had some blocks. Bob gave him 3 more. Then Tom had 7 blocks. How many blocks did Tom have to begin with?

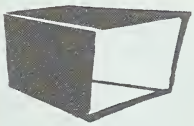
A

Tom had some blocks.

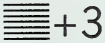
B

Bob gave him 3 more blocks.

C



Then Tom had 7 blocks.



D

E

F

7 minus 3

Subtract 3 from 7.

G

H

Tom had 4 blocks to begin with.

4+3=7

I

Nancy had some shells. She found 2 more. Then she had 5 shells. How many shells did Nancy have before she found the 2?

A

Nancy had some shells.

B

She found 2 more shells.

+2

C

Then she had 5 shells.

 +2=5

D

E

F

5 minus

Subtract from 5.

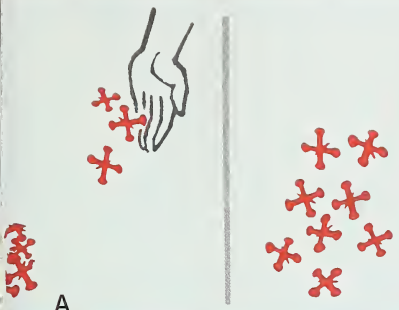
G

H

Nancy had shells before sh found the 2.

3+2=5

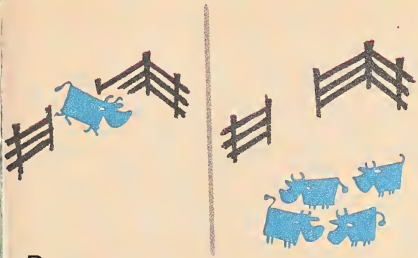
I



A

Ann had some jacks. Linda gave her 3 more. Then Ann had 8 jacks. How many jacks did Ann have before Linda gave her 3 more?

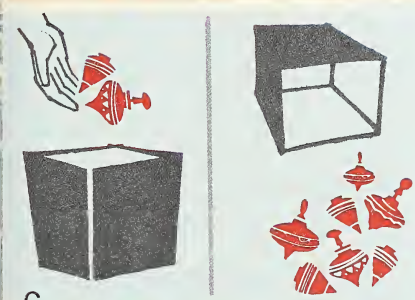
$\square + 3 = 8$ Subtract $\square$ from 8.



B

1 cow came into the yard. Then there were 4 cows in the yard. How many cows were in the yard to begin with?

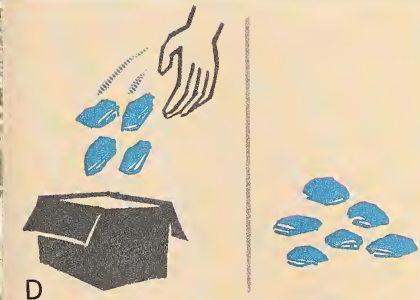
$\square + 1 = 4$ Subtract $\square$ from 4.



C

Dick had some tops. After he bought 2 more, he had 7 tops in all. How many tops did he have before he bought 2 more?

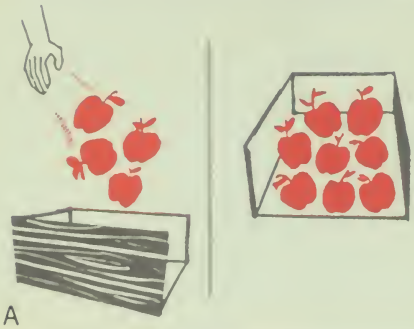
$\square + 2 = 7$



D

After Bob found 4 stones, he had 6 stones in all. How many stones did Bob have before he found the 4?

$\square + 4 = 6$

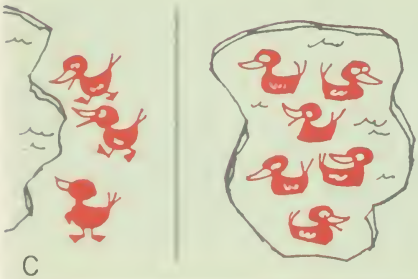


A

Some apples were in a box. Tim put 4 more apples with them. Then 8 apples were in the box. How many apples were in the box to begin with?

B

After Patty was given 3 dolls, she had 5 dolls in all. How many dolls did Patty have before she was given the 3 dolls?



C

Some ducks were in a pond. 3 more ducks came to join them. Then there were 6 ducks in the pond. How many ducks were in the pond to begin with?

D

John bought 2 new toy cars. Then he had 10 toy cars in all. How many toy cars did John have before he bought the 2 new cars?

A Tim had some marbles. Pete gave him 4 more marbles. Then Tim had 9 marbles in all. How many marbles did Tim have before Pete gave him the 4?

B Some horses were in a field. After 6 more horses joined them, 8 horses were in the field. How many horses were in the field to begin with?

C After Sue was given 3 quarters, she had 11 quarters in all. How many quarters did Sue have before she was given the 3?

D Mr. Ball had 10 apple trees to sell. He sold 8 of them. How many apple trees did Mr. Ball have left to sell?

E Sally put 6 new balls into a box. Then 9 balls were in the box. How many balls were in the box to begin with?

F After 5 crows flew into the yard, there were 8 crows in the yard. How many crows were in the yard to begin with?

G 5 crayons were in a box. Jack put 5 other crayons with them. How many crayons were in the box then?

H John put 7 new books on the shelf. Then 12 books were on the shelf. How many books were on the shelf to begin with?

A $\square + 5 = 8$

B $10 - 5 = \square$

C $\square + 6 = 8$

D $9 - 3 = \square$

E $\square + 7 = 12$

F $\square + 4 = 9$

G $5 + 5 = \square$

H $10 - 8 = \square$

I $\square + 3 = 11$

J $5 + 4 = \square$

K $\square + 6 = 9$

L $4 + 8 = \square$

A $1 + 8 = \square$

B $9 - 6 = \square$

C $7 - 4 = \square$

D $5 + 6 = \square$

E $9 - 2 = \square$

F $1 + 7 = \square$

G $10 - 7 = \square$

H $8 - 6 = \square$

I $3 + 4 = \square$

J $9 - 8 = \square$

K $9 + 2 = \square$

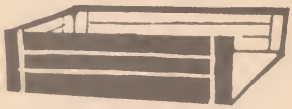
L $8 - 3 = \square$

M $9 + 3 = \square$

KEEPING SKILFUL
Additive action and subtractive action—sentences of the forms $\square + 2 = 5$, $3 + 2 = \square$, and $6 - 4 = \square$

Some apples were in a box.
Susan took 2 of them away.
Then 3 apples were in the box.
How many apples were
in the box to begin with?

A



Some apples were in a box.

B

Susan took 2 of them away.

−2

C

Then 3 apples were in the box.

−2=3

D

E

F

3 plus 2
Add 2 to 3.

G

H

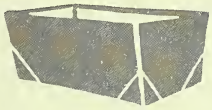
5 apples were in the box
to begin with.

5−2=3

I

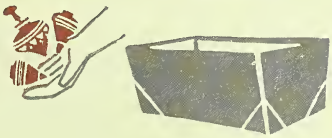
Bill had a box of tops. He gave 3 of them to Jim. Then he had 5 tops left. How many tops did Bill have before he gave 3 tops to Jim?

A



Bill had a box of tops.

B



He gave 3 of them to Jim.

−3

C

Then he had 5 tops left.

 −3=5

D

E

F

5 plus

Add to 5.

G

H

Bill had 8 tops before he gave 3 tops to Jim.

8−3=5

I

A

Jane had some dimes. She used 6 of them to buy a horn. Then she had 2 dimes left. How many dimes did Jane have to begin with?

$\square - 6 = 2$ Add $\square$ to 2.

B

Jack had some marbles. After he gave 4 of them to Pete, he had 6 marbles left. How many marbles did Jack have to begin with?

$\square - 4 = 6$ Add $\square$ to 6.

C

After 1 bird flew away, there were 5 birds in the yard. How many birds were in the yard before the 1 bird flew away?

$\square - 1 = 5$

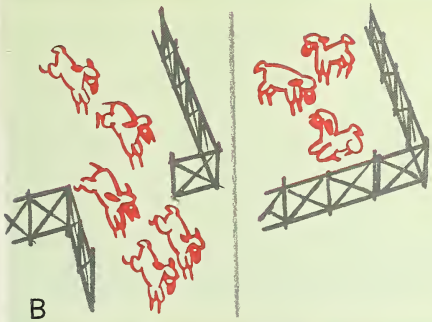
D

Ann gave 3 of her books to Tom. Then she had 4 books left. How many books did Ann have before she gave 3 books to Tom?

$\square - 3 = 4$

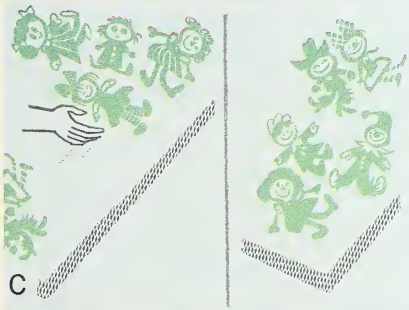
A

Some cookies were on a plate.
Mother gave 2 of them to Jack.
5 cookies were left on the plate.
How many cookies were
on the plate to begin with?



B

Some lambs were in a field.
After 5 of them went away, there
were 3 lambs in the field.
How many lambs were in the field
to begin with?



C

After Nancy took 4 dolls away,
there were 5 dolls on the shelf.
How many dolls were on the shelf
before Nancy took the 4 away?

D

Sally painted some pictures.
After she gave 3 of them to Susan,
she had 7 pictures left. How many
pictures had Sally painted?

A Some girls were playing jacks. 2 of the girls went home. Then 4 girls were playing jacks. How many girls were playing jacks to begin with?

B Ann had some bells. After she gave 3 of them to Nancy, she had 6 bells left. How many bells did Ann have to begin with?

C After Jack gave 5 of his toy bears to Jim, he had 7 bears left. How many toy bears did Jack have to begin with?

D After 2 rabbits jumped out of the pen, there were 6 rabbits in the pen. How many rabbits were in the pen to begin with?

E Bill had 3 toy firemen. He was given 8 more toy firemen for his birthday. How many toy firemen did Bill have then?

F John had 11 dimes. He used 6 of his dimes to buy a toy clown. How many dimes did he have left?

G After Sue ate 2 pieces of candy, she had 8 pieces left. How many pieces of candy did Sue have before she ate the 2 pieces?

H Jane picked some flowers. She gave 8 of them to her mother. Then she had 4 flowers left. How many flowers had Jane picked?

A $\square - 2 = 6$

B $8 + 1 = \square$

C $\square - 3 = 6$

D $\square - 8 = 4$

E $5 + 1 = \square$

F $\square - 2 = 4$

G $3 + 8 = \square$

H $\square - 2 = 8$

I $3 + 9 = \square$

J $\square - 5 = 7$

K $11 - 6 = \square$

L $2 + 5 = \square$

A $3 + 6 = \square$

B $6 - 2 = \square$

C $12 - 5 = \square$

D $2 + 9 = \square$

E $7 - 5 = \square$

F $2 + 6 = \square$

G $11 - 2 = \square$

H $7 - 2 = \square$

I $6 + 5 = \square$

J $12 - 4 = \square$

K $7 + 1 = \square$

L $11 - 6 = \square$

M $7 + 5 = \square$

A Jack had 5 storybooks. He was given 2 new storybooks for his birthday. Then Jack had how many storybooks?

B Some cookies were on the plate. Dick ate 2 of them. Then 7 cookies were left. How many cookies were on the plate before Dick ate the 2?

C Some kittens were in the barn. After 2 kittens joined them, 6 kittens were in the barn. How many kittens were in the barn to begin with?

D 10 chairs were at the table. Susan took 1 of them away. Then how many chairs were at the table?

E 6 buttons were in a basket. Sally put 2 more buttons with them. Then how many buttons were in the basket?

F Tim bought 4 new pencils. Then he had 10 pencils in all. How many pencils did Tim have before he bought the 4?

G 11 crows were in a field. 9 of them flew away. Then how many crows were in the field?

H Jim took 4 crayons out of a box. Then 8 crayons were in the box. How many crayons were in the box to begin with?

A $11-9=\square$

B $\square+2=6$

C $7-3=\square$

D $\square-2=7$

E $6+3=\square$

F $10-1=\square$

G $5+7=\square$

H $5+2=\square$

I $\square+4=10$

J $8+2=\square$

K $\square-4=8$

L $6+2=\square$

A $10-8=\square$

B $2+3=\square$

C $8+4=\square$

D $2-1=\square$

E $4+7=\square$

F $9-5=\square$

G $3+1=\square$

H $2+8=\square$

I $5-4=\square$

J $12-3=\square$

K $1+2=\square$

L $11-5=\square$

M $8-1=\square$

KEEPING SKILFUL
Additive action and subtractive action—sentences of the forms $3+2=\square$, $6-4=\square$, $\square+2=5$, and $\square-4=2$

A After John was given 1 half dollar, he had 4 half dollars in all. How many half dollars did John have before he was given the 1?

B 4 turtles left the pond. Then 3 turtles were in the pond. How many turtles were in the pond to begin with?

C 11 buttons were on the table. Jane put 8 of them into a box. Then how many buttons were on the table?

D After Mr. Bell sold 3 kites, he had 9 kites left to sell. How many kites did Mr. Bell have before he sold the 3?

E Pete was given 5 new pencils. Then he had 9 pencils. How many pencils did Pete have before he was given the 5?

F Ann found some pictures of birds. After she gave 3 of them to Susan, she had 8 pictures. How many pictures of birds had Ann found?

G 2 puppies were in the yard. 5 other puppies joined them. How many puppies were in the yard then?

H After Sue found 3 leaves, she had 9 leaves in all. How many leaves did Sue have before she found the 3?

A $\square + 3 = 9$

B $11 - 8 = \square$

C $3 + 7 = \square$

D $\square + 1 = 4$

E $12 - 7 = \square$

F $\square - 3 = 9$

G $2 + 5 = \square$

H $\square - 4 = 3$

I $7 + 4 = \square$

J $11 - 3 = \square$

K $\square + 5 = 9$

L $\square - 3 = 8$

A Add 1 to 2.

B Add 2 to 3.

C Subtract 1 from 4.

D Subtract 6 from 7.

E Subtract 4 from 8.

F Add 4 to 2.

G Subtract 7 from 9.

H Subtract 3 from 6.

I Add 8 to 3.

J Subtract 2 from 5.

K Add 6 to 1.

L Add 3 to 5.

M Subtract 4 from 6.

A

4

2

3

4

(2+3)

B

5

(4+2)

3

E

6

C

4+5

6+3

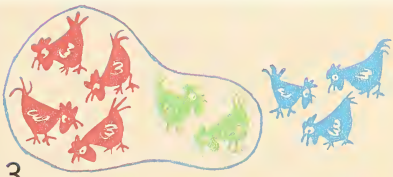
F

D

9

G

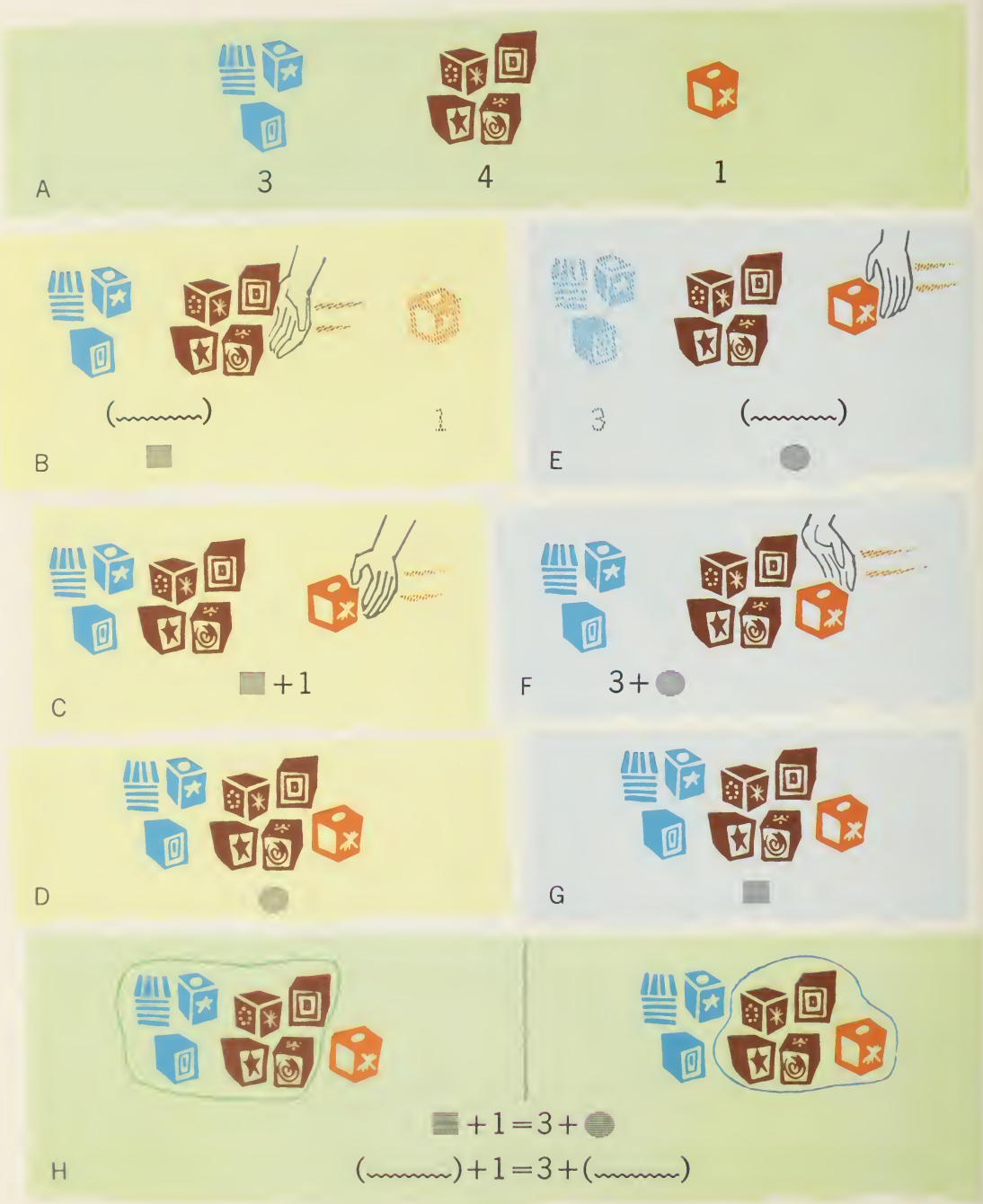
9



4+5=6+3

4+(2+3)=(4+2)+3

H


A
3
4
1
B
1
E
3
C
+1
F
3+
D
G
+1=3+
(_____)+1=3+(_____)
H

A

$2+1+5$

$(2+1)+5=2+(1+5)$

$3+5=2+6$

8

B

$4+1+6$

$4+(1+6)=(4+1)+6$

$4+7=5+6$

11

C $1+2+3$

D $2+3+4$

E $3+4+1$

F $5+2+4$

G $1+7+2$

H $1+1+8$

I $3+5+1$

J $2+6+2$

K $3+3+1$

L $2+1+4$

M $5+3+2$

N $7+1+3$

O $6+2+4$

P $8+1+3$

Q $5+1+6$

R $4+4+2$

S $7+1+4$

T $3+5+3$

A $1+5=\square+1$

B $4+8=8+\square$

C $3+4=4+\square$

D $9+2=2+\square$

E $6+\square=3+6$

F $\square+7=7+4$

G $\square+2=2+6$

H $1+\square=9+1$

I $\square+7=7+5$

J $5+4=4+\square$

K $3+\square=7+3$

L $5+\square=\square+5$

A Five is one greater than ▪.

B 476 is one less than ▪.

C 25 is between ▪ and 26.

D ▪ is between 927 and 929.

E Nine is one less than ▪.

F ▪ is one greater than 89.

G 200 is between ▪ and 201.

H ▪ is between 421 and 423.

I Zero is one less than ▪.

J 901 is one greater than ▪.

K ▪ is one less than 151.

L 780 is between 779 and ▪.

M ▪ is one less than 300.

N ▪ is one greater than zero.

O ▪ is between 169 and 171.

P 15 is greater than ▪.

Q ▪ is less than 20.

R ▪ is less than 364.

S 600 is greater than ▪.

T 75 is less than ▪.

U ▪ is greater than 2.

V ▪ is greater than 138.

A

B

C

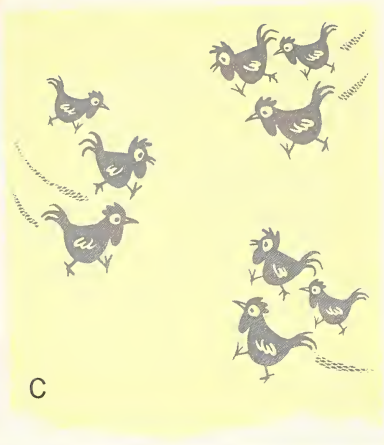
D

E

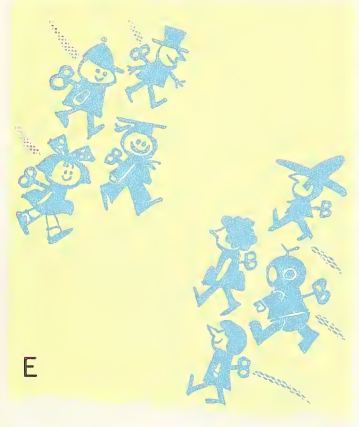
F

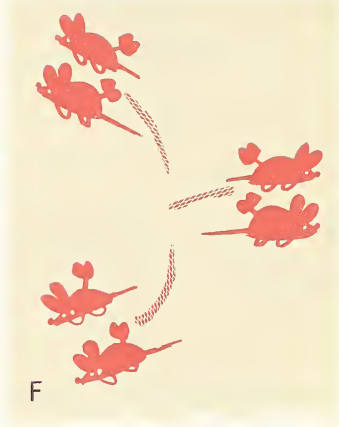
A

B


C

D


E


F

G

H

I

A
3
2
3 twos
3 times 2
2 multiplied by 3
3×2

B
2
4
2 fours
2 times 4
4 multiplied by 2
2×4

C
3
3
3
3 times
multiplied by 3
3×

D
4
2
times
multiplied by
×

A 8

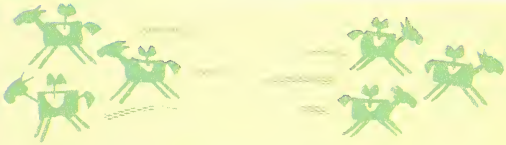
2

eight divided by two

$8 \div 2$

B 6

3



six divided by three

$6 \div 3$

C 4

2

four divided by ▪

$4 \div$ ▪

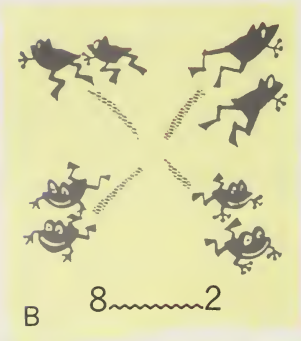
D 9

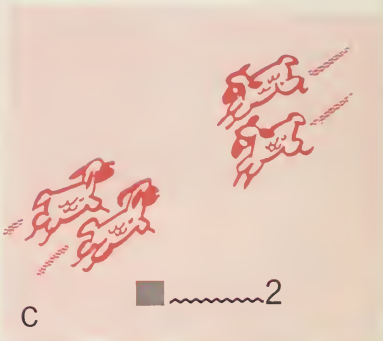
3

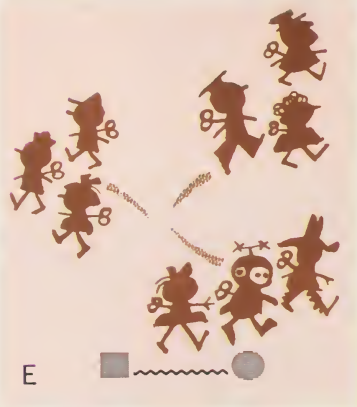
▪ divided by ●

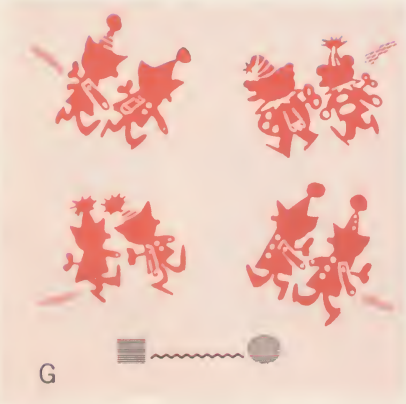
▪ ÷ ●

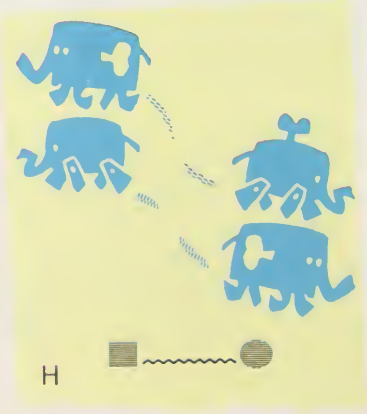
divided by multiplied by × ÷





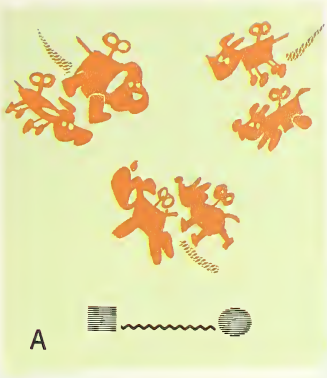






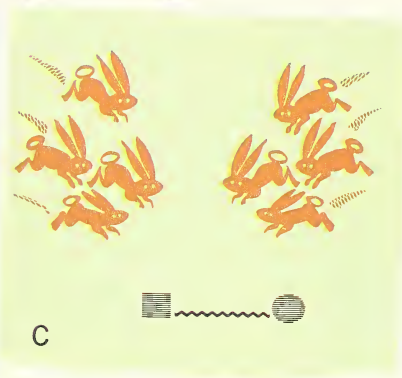
plus — multiplied by — ÷ —

minus — divided by — + ×



A

B



C

D

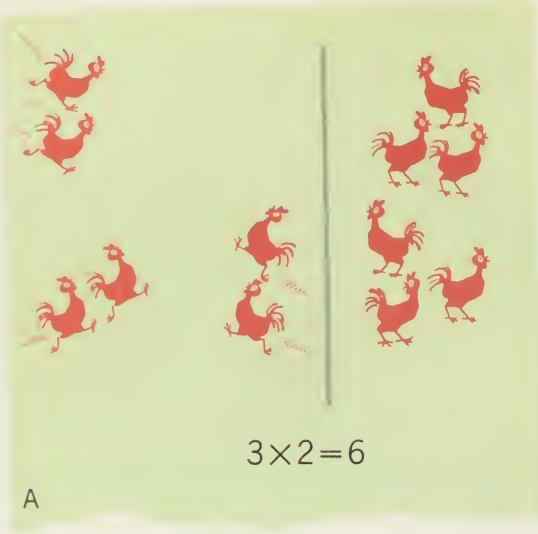
E

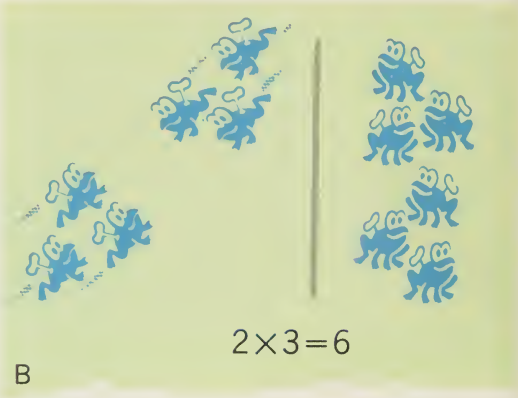
F

G

H

I

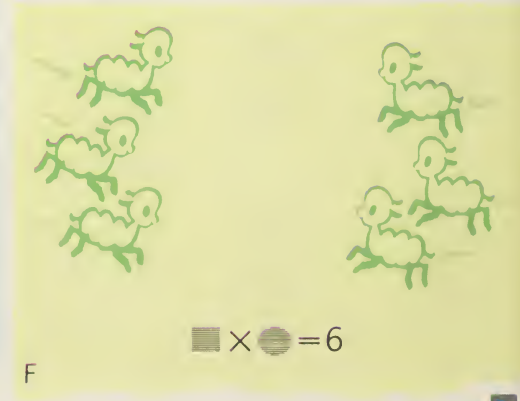

3×2=6
A

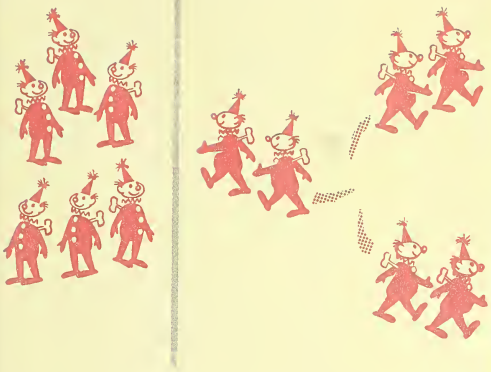

2×3=6
B

2×3=
C

3×2=
D

×=6
E


×=6
F



$6 \div 2 = 3$

A

$6 \div 3 = 2$

B

$6 \div 3 = \square$

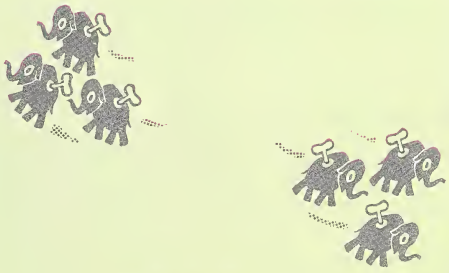
C

$6 \div 2 = \square$

D

$\square \div \bigcirc = 3$

E



$\square \div \bigcirc = 2$

F

A $6 \div 3 =$ ■

B $4 + 2 =$ ■

C $5 - 1 =$ ■

D $3 \times 2 =$ ■

E $6 - 3 =$ ■

F $1 + 5 =$ ■

G $3 - 2 =$ ■

H $2 \times 3 =$ ■

I $6 - 2 =$ ■

J $1 + 4 =$ ■

K $6 \div 2 =$ ■

L $2 + 1 =$ ■

M $3 + 3 =$ ■

N $6 - 1 =$ ■

O $2 \times 3 =$ ■

P $3 + 2 =$ ■

Q $5 + 1 =$ ■

R $6 \div 2 =$ ■

S $6 - 4 =$ ■

T $3 \times 2 =$ ■

U $5 - 3 =$ ■

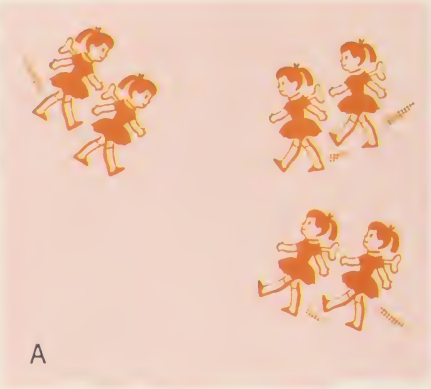
V $6 - 5 =$ ■

W $1 + 1 =$ ■

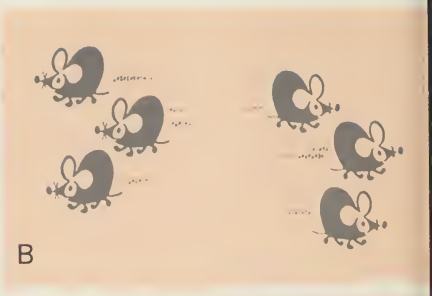
X $6 \div 3 =$ ■

Y $2 + 4 =$ ■

Z $5 - 2 =$ ■



A

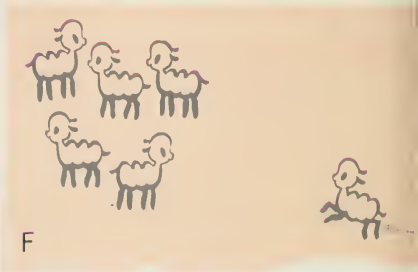


B

C

D

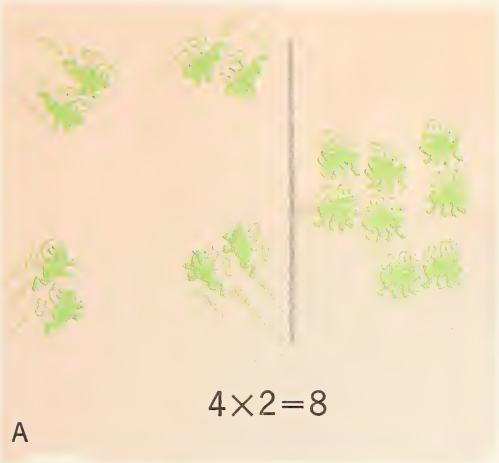
E



F

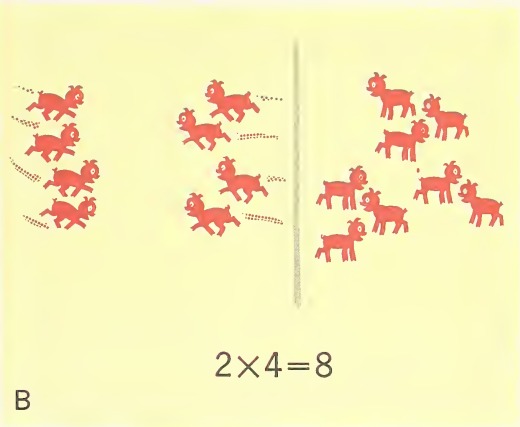
G

H



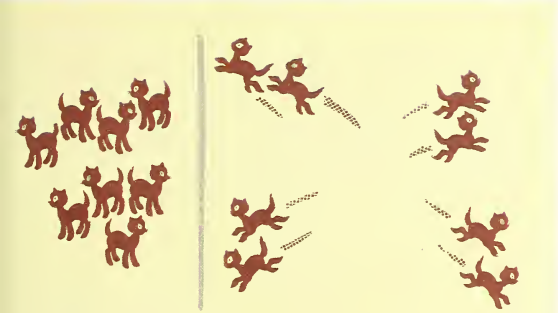
$4 \times 2 = 8$

A



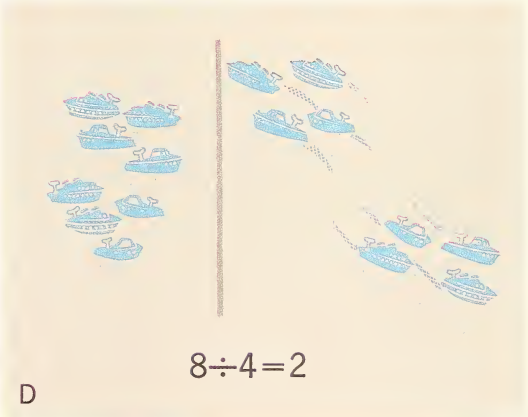
$2 \times 4 = 8$

B



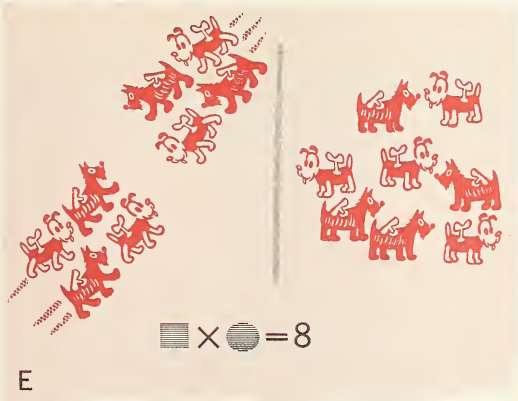
$8 \div 2 = 4$

C



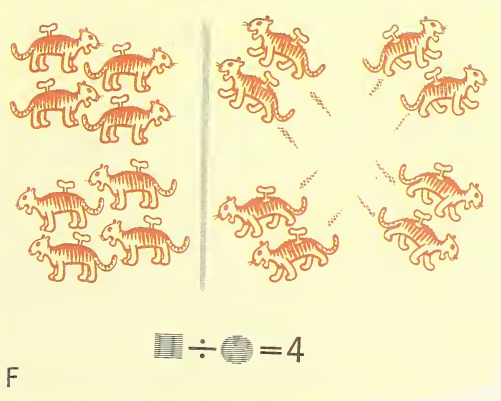
$8 \div 4 = 2$

D



$\square \times \bigcirc = 8$

E



$\square \div \bigcirc = 4$

F

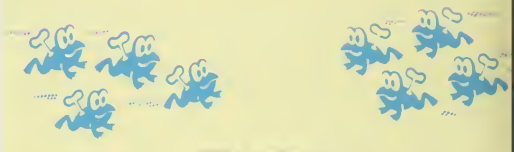
A $8 \div 4 = \square$

B $2 \times 4 = \square$

C $4 \times 2 = \square$

D $8 \div 2 = \square$

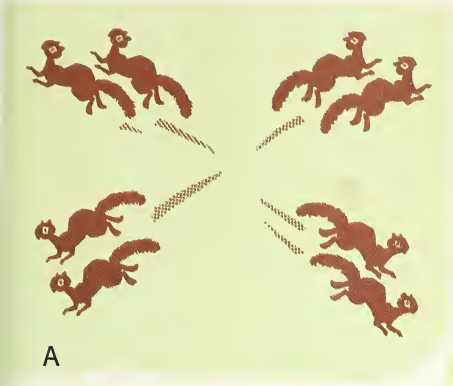
E $\square \div \bigcirc = 2$



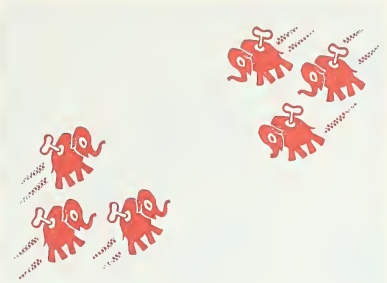
F $\square \times \bigcirc = 8$

G $\square \times \bigcirc = 8$

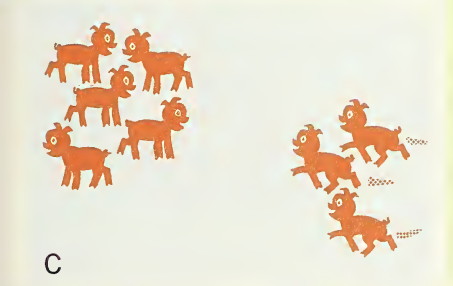
H $\square \div \bigcirc = 2$



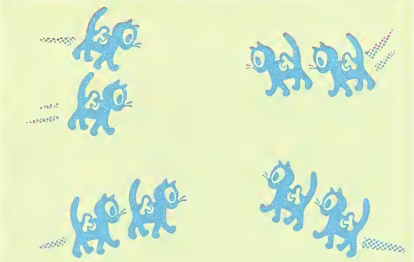
A



B

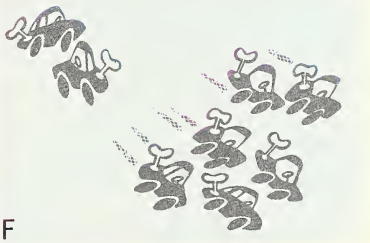


C



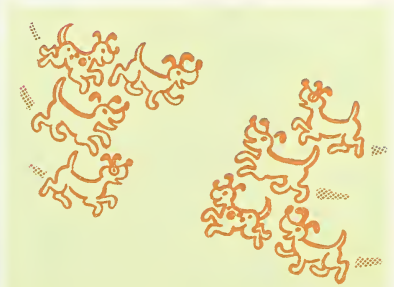
D

E



F

G

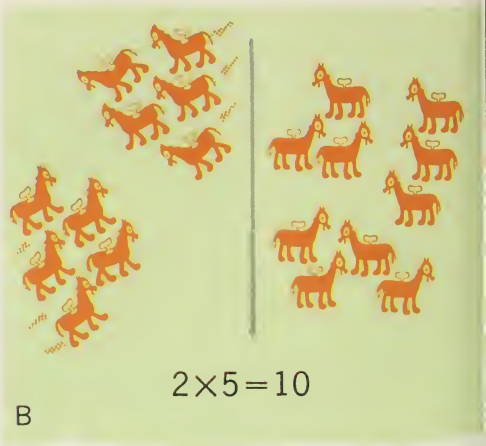


H

A	$2+6=$
B	$8\div4=$
C	$8-6=$
D	$2+5=$
E	$4\times2=$
F	$7-3=$
G	$1+7=$
H	$2\times4=$
I	$3+5=$
J	$6\div3=$
K	$8-1=$
L	$4+4=$
M	$6+1=$
N	$2\times3=$
O	$5+3=$
P	$8-2=$
Q	$3\times2=$
R	$8-4=$
S	$7+1=$
T	$6\div2=$
U	$8-3=$
V	$6+2=$
W	$8\div2=$
X	$8-7=$
Y	$7-2=$
Z	$8-5=$

$5 \times 2 = 10$

A



$2 \times 5 = 10$

B

$10 \div 2 = 5$

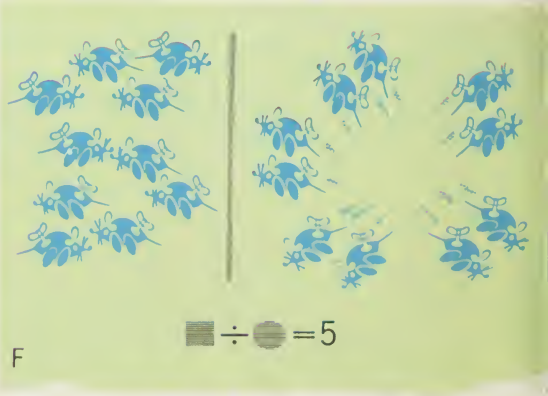
C

$10 \div 5 = 2$

D

$\square \times \bigcirc = 10$

E



$\square \div \bigcirc = 5$

F

$10 \div 5 = \square$

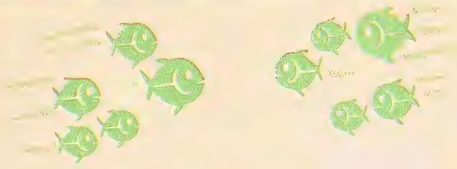
A

$5 \times 2 = \square$

B

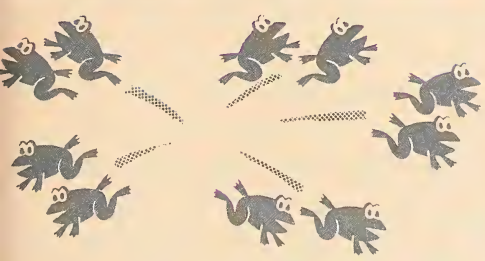
$4 \times 2 = \square$

C



$\square \times \bigcirc = 10$

D



E $10 \div 2 = \square$

F $\square \div \bigcirc = 2$

G $\square \div \bigcirc = 2$

H $\square \times \bigcirc = 10$

A $10-2=$ ■

B $1+9=$ ■

C $2\times5=$ ■

D $10-4=$ ■

E $8\div4=$ ■

F $10-7=$ ■

G $5+5=$ ■

H $4\times2=$ ■

I $2+8=$ ■

J $10\div2=$ ■

K $10-3=$ ■

L $6+4=$ ■

M $2\times4=$ ■

N $9+1=$ ■

O $3+7=$ ■

P $10-6=$ ■

Q $8\div2=$ ■

R $10-9=$ ■

S $8+2=$ ■

T $10-5=$ ■

U $5\times2=$ ■

V $7+3=$ ■

W $10-1=$ ■

X $4+6=$ ■

Y $10\div5=$ ■

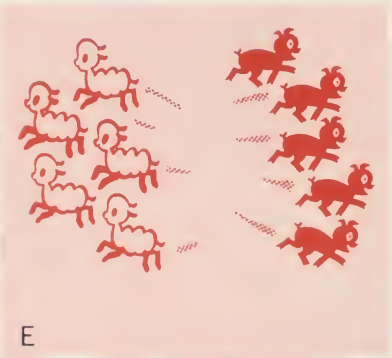
Z $10-8=$ ■

A

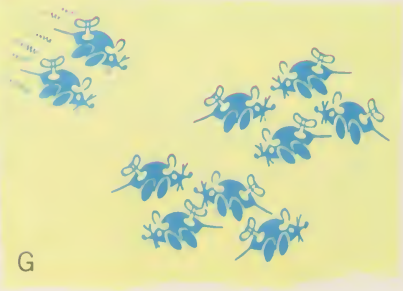
B

C

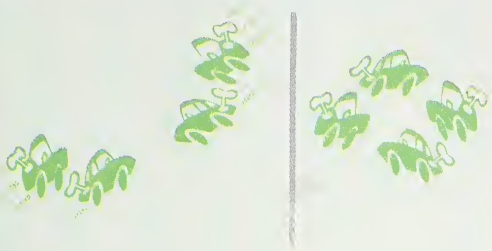
D


E

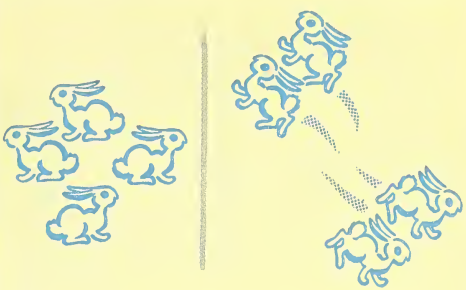
F


G

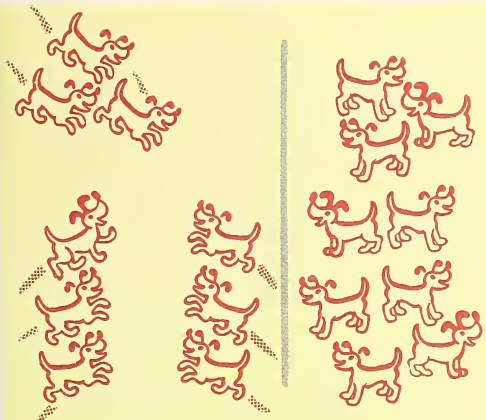
H



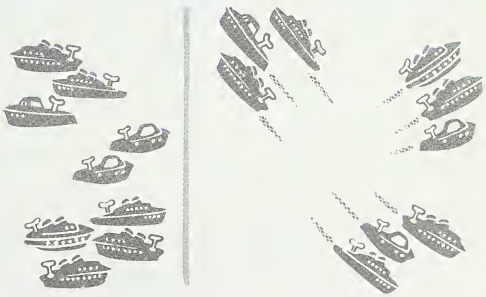
A $2 \times 2 = 4$



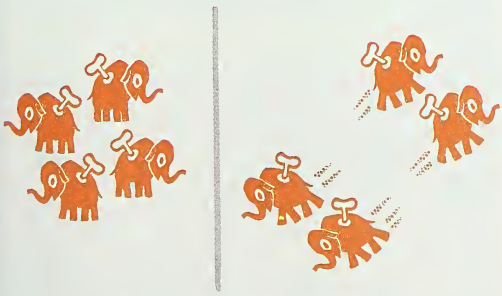
B $4 \div 2 = 2$



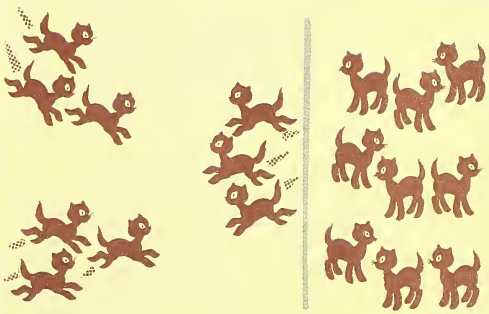
C $3 \times 3 = 9$



D $9 \div 3 = 3$

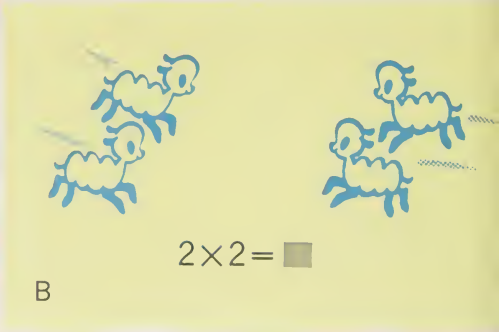


E $\square \div \bigcirc = 2$



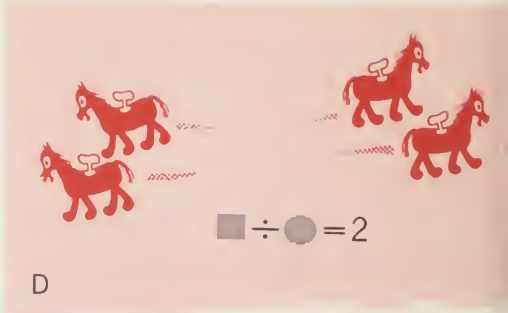
F $\square \times \bigcirc = 9$

A $9 \div 3 = \square$



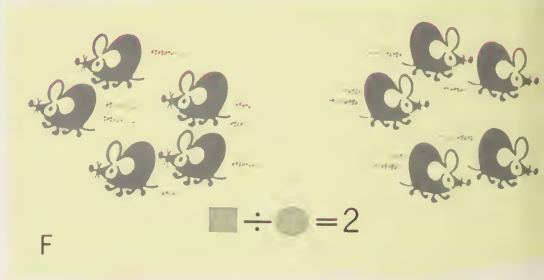
B $2 \times 2 = \square$

C $\square \times \bigcirc = 10$

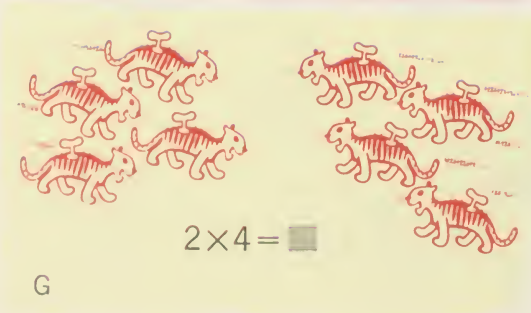


D $\square \div \bigcirc = 2$

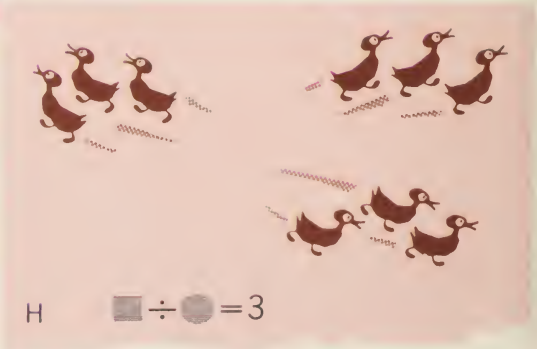
E $3 \times 3 = \square$



F $\square \div \bigcirc = 2$

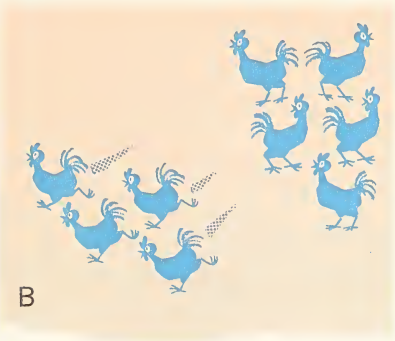


G $2 \times 4 = \square$



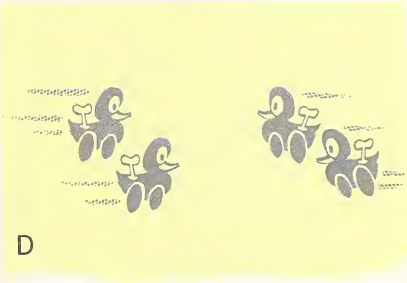
H $\square \div \bigcirc = 3$

A

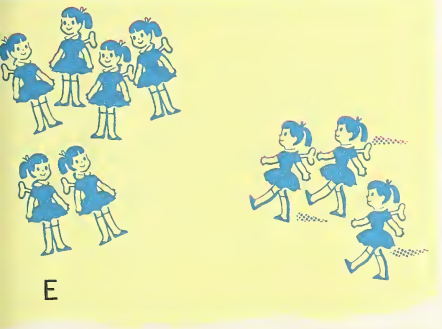


B

C



D



E

F

G

H

A $9-4=$ ▒

B $2+7=$ ▒

C $1+3=$ ▒

D $9-1=$ ▒

E $6+3=$ ▒

F $4-2=$ ▒

G $9-3=$ ▒

H $4+5=$ ▒

I $3+1=$ ▒

J $3\times3=$ ▒

K $9-8=$ ▒

L $4\div2=$ ▒

M $9-2=$ ▒

N $5+4=$ ▒

O $2+2=$ ▒

P $4-1=$ ▒

Q $9-6=$ ▒

R $1+8=$ ▒

S $2\times2=$ ▒

T $9-5=$ ▒

U $7+2=$ ▒

V $9\div3=$ ▒

W $3+6=$ ▒

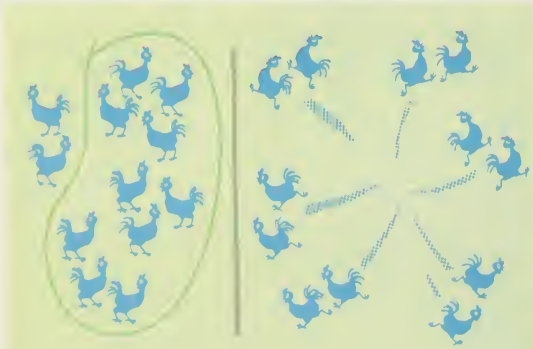
X $8+1=$ ▒

Y $4-3=$ ▒

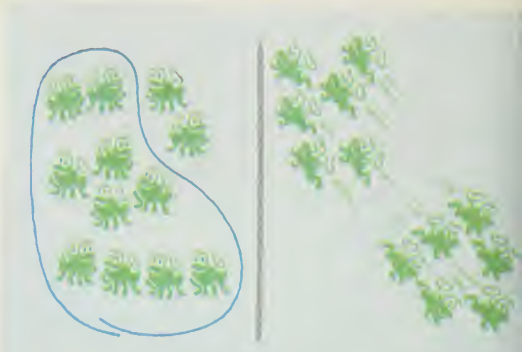
Z $9-7=$ ▒

A $6 \times 2 = 12$

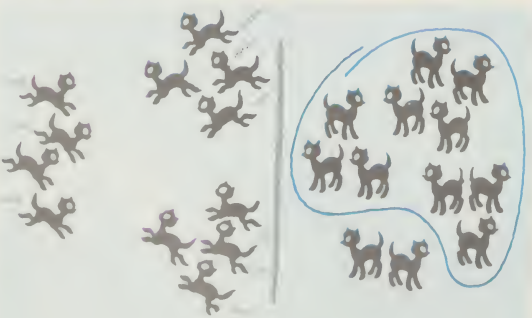
B $2 \times 6 = 12$



C $12 \div 2 = 6$

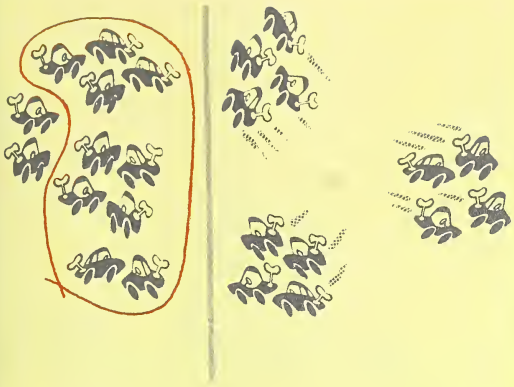


D $12 \div 6 = 2$

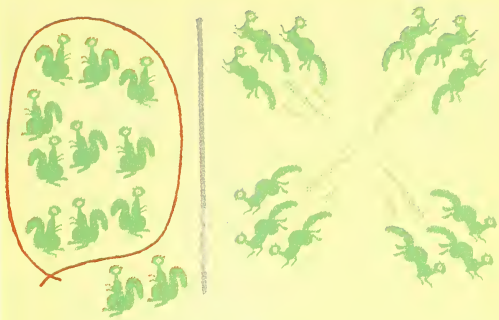


E $3 \times 4 = 12$

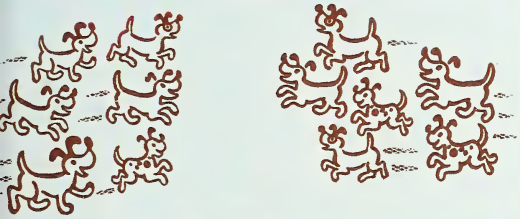
F $4 \times 3 = 12$



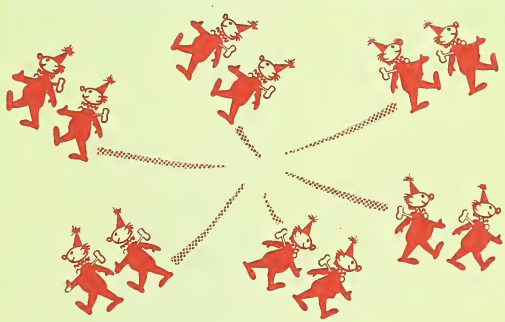
A $12 \div 4 = 3$



B $12 \div 3 = 4$



C $\square \times \bigcirc = 12$



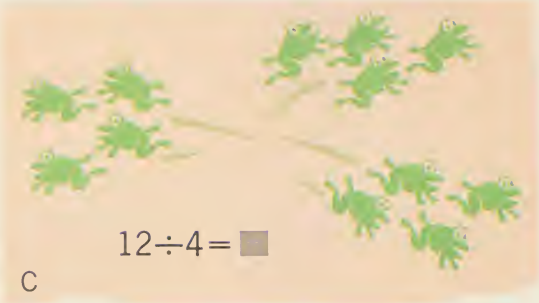
D $12 \div 2 = \square$

E $12 \div 3 = \square$

F $\square \times \bigcirc = 12$

A $12 \div 6 = \square$

B $\square \times \bigcirc = 12$

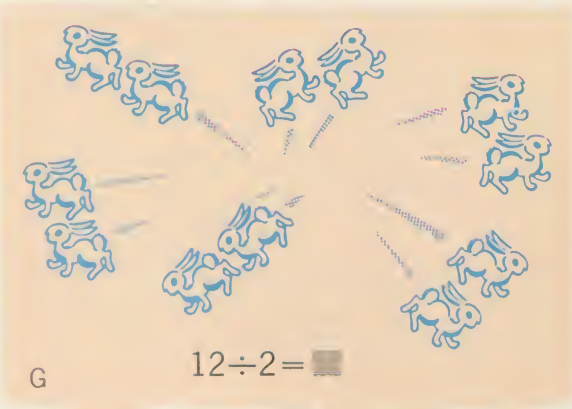


C $12 \div 4 = \square$

D $\square \times \bigcirc = 12$

E $\square \times \bigcirc = 12$

F $12 \div 3 = \square$



G $12 \div 2 = \square$

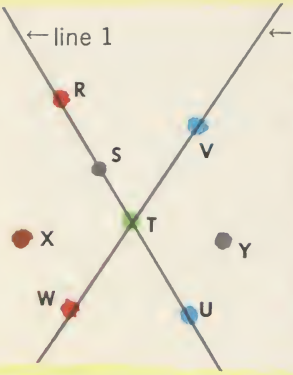
H $\square \times \bigcirc = 12$

A $12-5=$ ▭	G $8+4=$ ▭	M $4\times3=$ ▭	S $6+6=$ ▭
B $12\div3=$ ▭	H $12\div2=$ ▭	N $9+3=$ ▭	T $12\div2=$ ▭
C $3+9=$ ▭	I $3\times4=$ ▭	O $6\times2=$ ▭	U $4+8=$ ▭
D $2\times6=$ ▭	J $12-3=$ ▭	P $12-7=$ ▭	V $12\div6=$ ▭
E $12-8=$ ▭	K $5+7=$ ▭	Q $12\div4=$ ▭	W $12-9=$ ▭
F $7+5=$ ▭	L $12-6=$ ▭	R $12-4=$ ▭	X $4\times3=$ ▭

A $8\div4=$ ▭	E $3\times3=$ ▭	I $12\div3=$ ▭	M $2\times5=$ ▭
B $11-7=$ ▭	F $12\div6=$ ▭	J $2\times3=$ ▭	N $7-1=$ ▭
C $2\times2=$ ▭	G $4\times2=$ ▭	K $9+2=$ ▭	O $3\times4=$ ▭
D $10\div5=$ ▭	H $5+7=$ ▭	L $6\times2=$ ▭	P $6\div2=$ ▭

A $12\div4=$ ▭	E $5\times2=$ ▭	I $9\div3=$ ▭	M $1+4=$ ▭
B $6\div3=$ ▭	F $4-3=$ ▭	J $2+2=$ ▭	N $2\times4=$ ▭
C $5+6=$ ▭	G $2\times6=$ ▭	K $3\times2=$ ▭	O $11-3=$ ▭
D $4\times3=$ ▭	H $8\div2=$ ▭	L $12\div2=$ ▭	P $10\div2=$ ▭

A 3 multiplied by 4 is equal to ▭.
B Subtract 8 from 11.
C 10 divided by 5 is equal to ▭.
D 3 minus 1 is equal to ▭.
E 4 plus 3 is equal to ▭.
F 12 divided by 4 is equal to ▭.
G Add 5 to 3.
H 8 divided by 2 is equal to ▭.
I 2 multiplied by 3 is equal to ▭.
J 9 divided by 3 is equal to ▭.
K 5 times 2 is equal to ▭.
L Add 3 to 8.
M Subtract 3 from 5.
N 4 multiplied by 2 is equal to ▭.
O 11 minus 4 is equal to ▭.
P 7 plus 2 is equal to ▭.
Q 3 times 3 is equal to ▭.
R 4 divided by 2 is equal to ▭.



A Name points that are in line 1.

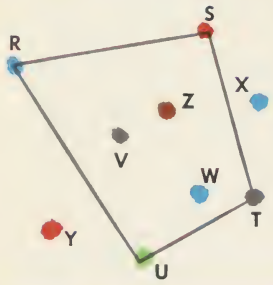
B Name points that are not in line 1.

C What point is between point R and point T?

D What point is between point S and point U?

E What point is between point V and point W?

F Name segments that are in line 2.



G This polygon is made up of ▢ segments.

H Name the segments that make up the polygon.

I This polygon has ▢ sides.

J Name the sides of this polygon.

K Name points that are inside the polygon.

L Name points that are outside the polygon.

A 8 tens 2 ones ▢

B 1 hundred 4 tens 8 ones ▢

C 7 hundreds 5 tens 6 ones ▢

D 3 tens 9 ones ▢

E 4 hundreds 1 ten 5 ones ▢

F 8 hundreds 6 tens 4 ones ▢

G 9 tens 3 ones ▢

H 9 hundreds 7 tens 1 one ▢

I 2 hundreds 7 tens 3 ones ▢

J 3 hundreds 2 tens 7 ones ▢

A 65 ▢ tens ○ ones

B 241 ▢ hundreds ○ tens 1 one

C 689 6 hundreds ▢ tens ○ ones

D 312 ▢ hundreds 1 ten ○ ones

E 74 ▢ tens ○ ones

F 927 ▢ hundreds ○ tens 7 ones

G 56 ▢ tens ○ ones

H 873 8 hundreds ▢ tens ○ ones

I 435 ▢ hundreds 3 tens ○ ones

J 534 ▢ hundreds 3 tens ○ ones

A John had 1 penny. His grandfather gave him 6 new pennies. How many pennies did John have then?

B Carol lost 2 of her jacks. Then she had 9 jacks left. How many jacks did Carol have before she lost the 2?

C 10 paper hats were in a box. Patty took out 6 of the paper hats. How many paper hats were left in the box?

D After Dick bought 1 new toy truck, he had 9 trucks in all. How many trucks did he have before he bought the new truck?

E Mr. Green had 12 toy trains to sell. He sold 7 of the trains. How many trains did he have left to sell?

F Susan had 3 crayons. Her brother gave her 8 more crayons. How many crayons did Susan have then?

G Ann found 5 new pictures of bears. Then she had 12 pictures of bears in all. How many pictures of bears did Ann have before she found the 5?

H Jim had some candy. After he ate 2 pieces, he had 7 pieces left. How many pieces of candy did Jim have before he ate the 2 pieces?

A $11-4=$ ▒

B $8\div4=$ ▒

C $12-8=$ ▒

D $3\times4=$ ▒

E $7+5=$ ▒

F $10\div2=$ ▒

G $11-8=$ ▒

H $6\div3=$ ▒

I $12-3=$ ▒

J $2\times2=$ ▒

K $6+3=$ ▒

L $12\div6=$ ▒

M $4+7=$ ▒

N $5+3=$ ▒

O $2\times5=$ ▒

P $12-7=$ ▒

Q $9-6=$ ▒

R $9\div3=$ ▒

S $8+3=$ ▒

T $10-3=$ ▒

U $6\times2=$ ▒

V $3+9=$ ▒

W $3\times2=$ ▒

X $12\div3=$ ▒

Y $2\times4=$ ▒

Z $4+8=$ ▒

1	2	3	4	5	6
2−1	1+1	1+2	1+3	1+4	1+5
3−2	3−1	2+1	2+2	2+3	2+4
4−3	4−2	4−1	3+1	3+2	3+3
5−4	5−3	5−2	5−1	4+1	4+2
6−5	6−4	6−3	6−2	6−1	5+1
7−6	7−5	7−4	7−3	7−2	7−1
8−7	8−6	8−5	8−4	8−3	8−2
9−8	9−7	9−6	9−5	9−4	9−3
10−9	10−8	10−7	10−6	10−5	10−4
	11−9	11−8	11−7	11−6	11−5
	4÷2	12−9	12−8	12−7	12−6
	6÷3	6÷2	2×2	10÷2	2×3
	8÷4	9÷3	8÷2		3×2
	10÷5	12÷4	12÷3		12÷2
	12÷6				

A 1+4 is a name for 5.

B 10−7 is a name for ▢.

C 5+3 is a name for ▢.

D 3×2 is a name for ▢.

E 9−5 is a name for ▢.

F 4+7 is a name for ▢.

G 10÷2 is a name for ▢.

H 3×3 is a name for ▢.

I 2×5 is a name for ▢.

J 12−5 is a name for ▢.

K 4+8 is a name for ▢.

L 12÷3 is a name for ▢.

M 8+3 is a name for ▢.

N 4×2 is a name for ▢.

O 6÷3 is a name for ▢.

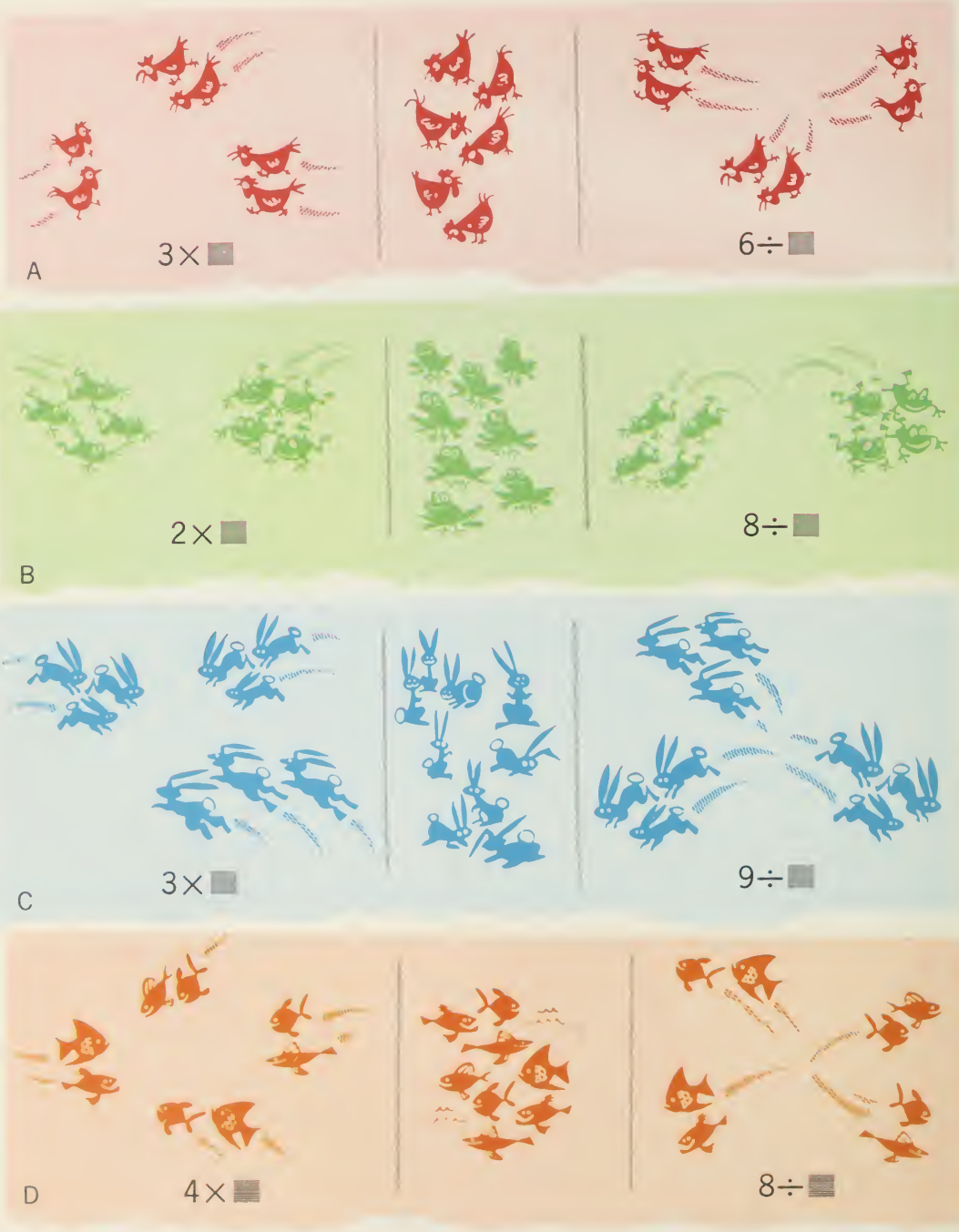
P 11−2 is a name for ▢.

Q 6+4 is a name for ▢.

R 4×3 is a name for ▢.

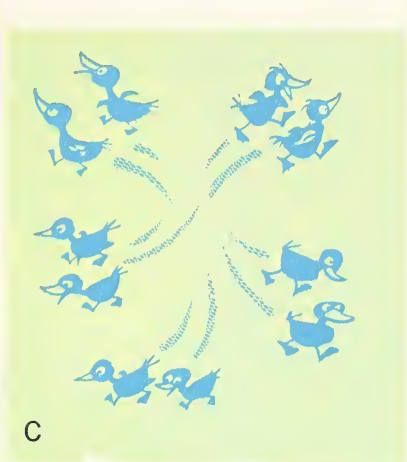
7	8	9	10	11	12
1+6	1+7	1+8	1+9	2+9	3+9
2+5	2+6	2+7	2+8	3+8	4+8
3+4	3+5	3+6	3+7	4+7	5+7
4+3	4+4	4+5	4+6	5+6	6+6
5+2	5+3	5+4	5+5	6+5	7+5
6+1	6+2	6+3	6+4	7+4	8+4
8−1	7+1	7+2	7+3	8+3	9+3
9−2	9−1	8+1	8+2	9+2	2×6
10−3	10−2	10−1	9+1		3×4
11−4	11−3	11−2	2×5		4×3
12−5	12−4	12−3	5×2		6×2
	2×4	3×3			
	4×2				

is less than	is equal to	is greater than
A 4+6 ⟋ 6+4.	**I** 6+5 ⟋ 7+2.	**Q** 3+4 ⟋ 4+3.
B 1+7 ⟋ 11−3.	**J** 5+3 ⟋ 1+9.	**R** 6÷2 ⟋ 3×2.
C 5+4 ⟋ 3+2.	**K** 2×3 ⟋ 6+2.	**S** 11−5 ⟋ 12÷2.
D 6+3 ⟋ 2+5.	**L** 5+7 ⟋ 7+5.	**T** 9+2 ⟋ 12−3.
E 3+8 ⟋ 7+4.	**M** 5×2 ⟋ 2×4.	**U** 8+3 ⟋ 3×4.
F 9−1 ⟋ 8−3.	**N** 3×3 ⟋ 2+7.	**V** 10÷2 ⟋ 2×2.
G 3+9 ⟋ 5+2.	**O** 12÷6 ⟋ 9−3.	**W** 12÷3 ⟋ 9÷3.
H 11−4 ⟋ 5+5.	**P** 4+5 ⟋ 2+9.	**X** 10−3 ⟋ 12−5.

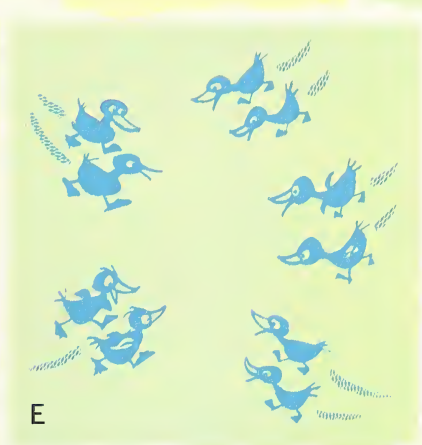

A
3×■
6÷■
B
2×■
8÷■
C
3×■
9÷■
D
4×■
8÷■

A

B


C

D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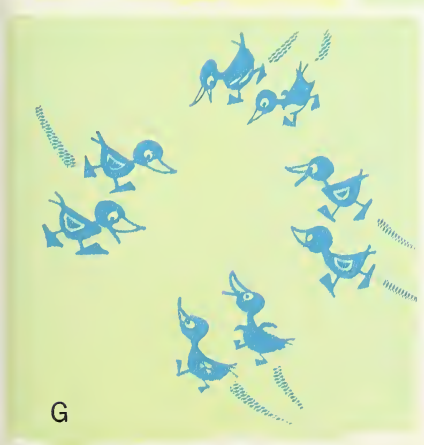
F


G

H

I

A

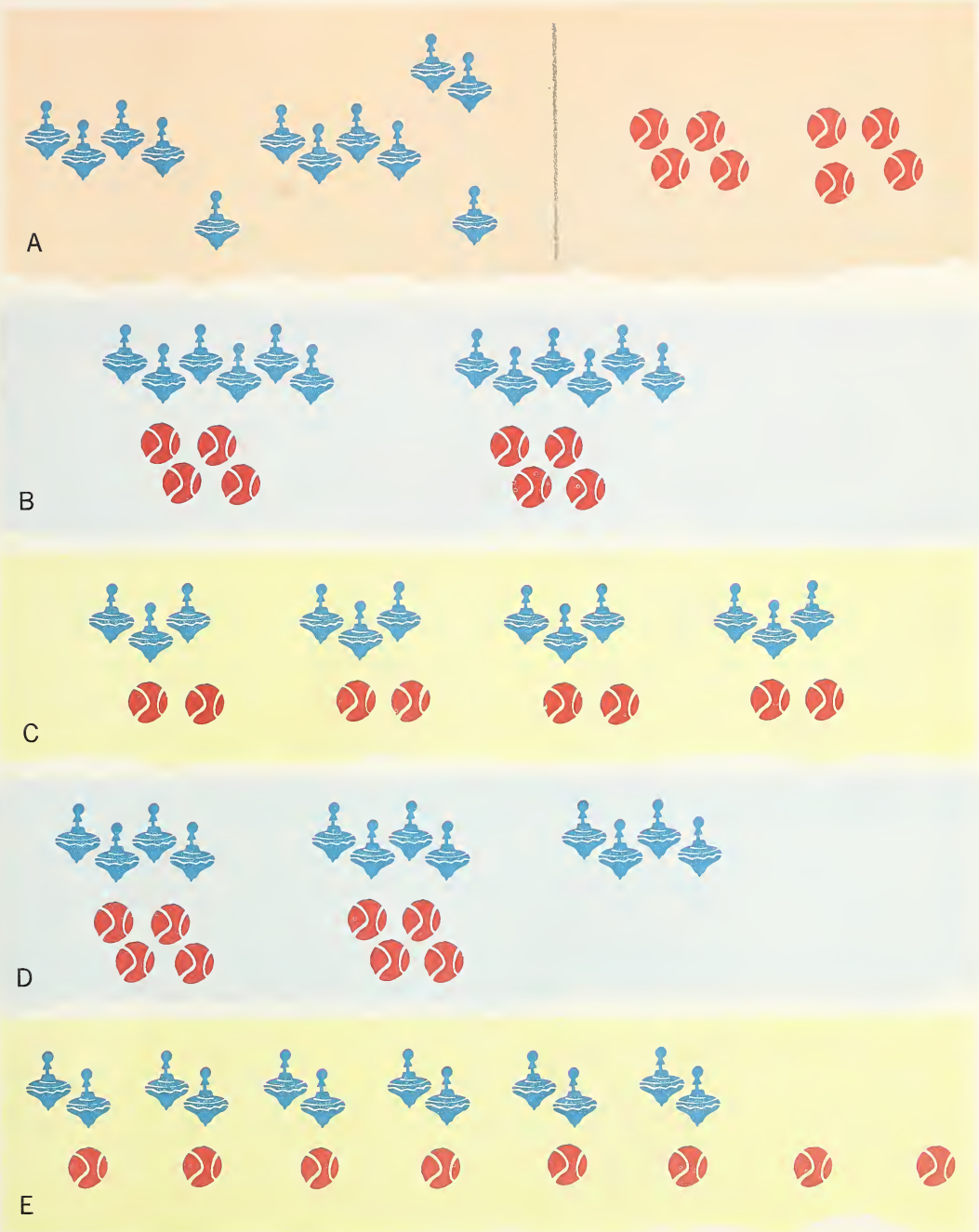
B

C

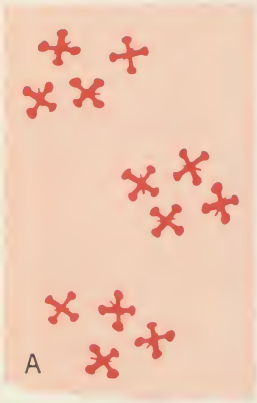
D

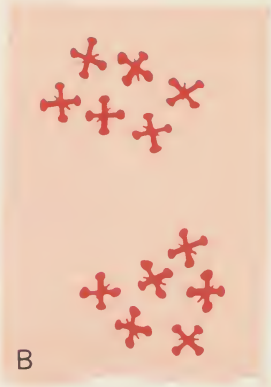
E

F



RATE PAIRS
Developing the meaning of rate pairs—use of expressions like "2 out of 3" and "3 to 4"


A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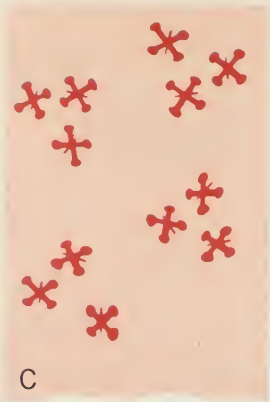
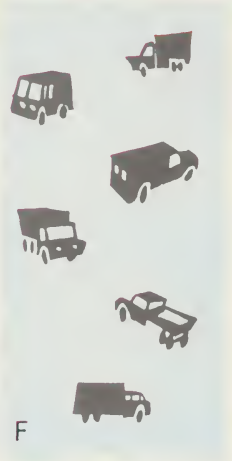

C

D

E


F

G

H

I

J

K

L

A Subtract 5 from 7.

B 4 multiplied by 2 is equal to ▭.

C 12 divided by 3 is equal to ▭.

D 2 multiplied by 2 is equal to ▭.

E 4 plus 5 is equal to ▭.

F 6 divided by 2 is equal to ▭.

G 8 minus 3 is equal to ▭.

H 2 multiplied by 5 is equal to ▭.

I Subtract 6 from 9.

J 3 multiplied by 4 is equal to ▭.

K Add 4 to 7.

L 12 divided by 6 is equal to ▭.

M 2 plus 9 is equal to ▭.

N 10 divided by 2 is equal to ▭.

O Add 6 to 2.

P 9 divided by 3 is equal to ▭.

Q Subtract 6 from 10.

R 8 divided by 2 is equal to ▭.

S 6 multiplied by 2 is equal to ▭.

T 7 plus 5 is equal to ▭.

A 1 dime has a value of ▭ cents.

B 1 quarter has a value of ▭ cents.

C 1 ▭ has a value of 100 cents.

D 1 ▭ has a value of 5 cents.

E 1 half dollar has a value of ▭ cents.

F 1 ▭ has a value of 25 cents.

G 1 nickel has a value of ▭ cents.

H 1 ▭ has a value of 10 cents.

I 1 ▭ has a value of 50 cents.

J 1 dollar has a value of ▭ cents.

A $4+8=\square+4$

B $5+\square=2+5$

C $\square+1=1+2$

D $2+6=6+\square$

E $1+4=\square+1$

F $\square+3=3+6$

G $2+\square=4+2$

H $6+5=5+\square$

I $4+1=\square+4$

J $\square+2=2+\square$

A
$$3+4+2$$
$$(3+4)+2=3+(4+2)$$
$$7+2=3+6$$
$$9$$

B $4+1+2$

C $3+6+1$

D $2+1+3$

E $6+2+4$

F $5+3+3$

G $4+1+4$

H $5+2+1$

I $6+3+2$

A 11 boys were in the schoolyard. 4 of the boys went home. Then how many boys were in the schoolyard?

B Sue made 3 paper hats. Then she had 8 paper hats in all. How many paper hats did Sue have before she made the 3?

C After Mrs. Brown picked 8 flowers, 4 flowers were left in the garden. How many flowers were in the garden before Mrs. Brown picked the 8?

D Bob had 5 toy trucks. His brother gave him 4 new trucks for his birthday. How many toy trucks did Bob have then?

E After Bill took 3 toy clowns away, 5 clowns were on the table. How many clowns were on the table to begin with?

F Nancy had 2 toy cats. She was given 8 new toy cats. How many toy cats did Nancy have then?

G 10 rabbits were in a pen. 9 of them jumped out. Then how many rabbits were in the pen?

H Tom was given 3 toy train cars for his birthday. Then he had 12 train cars. How many train cars did Tom have before he was given the 3?

A $3+8=$ ▢

B $9-3=$ ▢

C $3\times3=$ ▢

D $5+7=$ ▢

E $4\times2=$ ▢

F $12\div4=$ ▢

G $6\div2=$ ▢

H $12-9=$ ▢

I $2\times6=$ ▢

J $8+4=$ ▢

K $4\div2=$ ▢

L $11-7=$ ▢

M $3+6=$ ▢

N $10\div5=$ ▢

O $9+3=$ ▢

P $12-4=$ ▢

Q $4\times3=$ ▢

R $11-3=$ ▢

S $3+7=$ ▢

T $5\times2=$ ▢

U $12-5=$ ▢

V $8\div2=$ ▢

W $2\times3=$ ▢

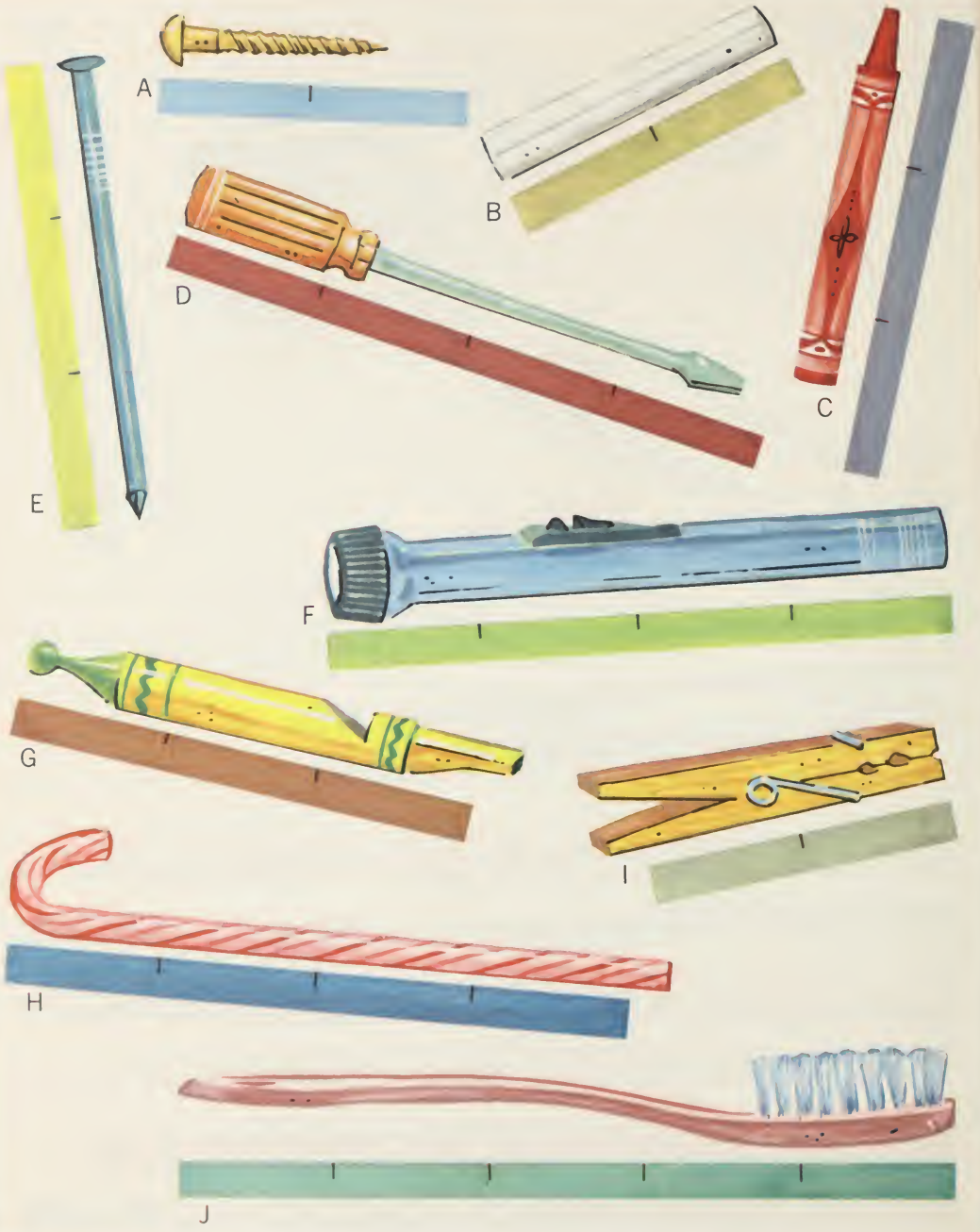
X $12\div2=$ ▢

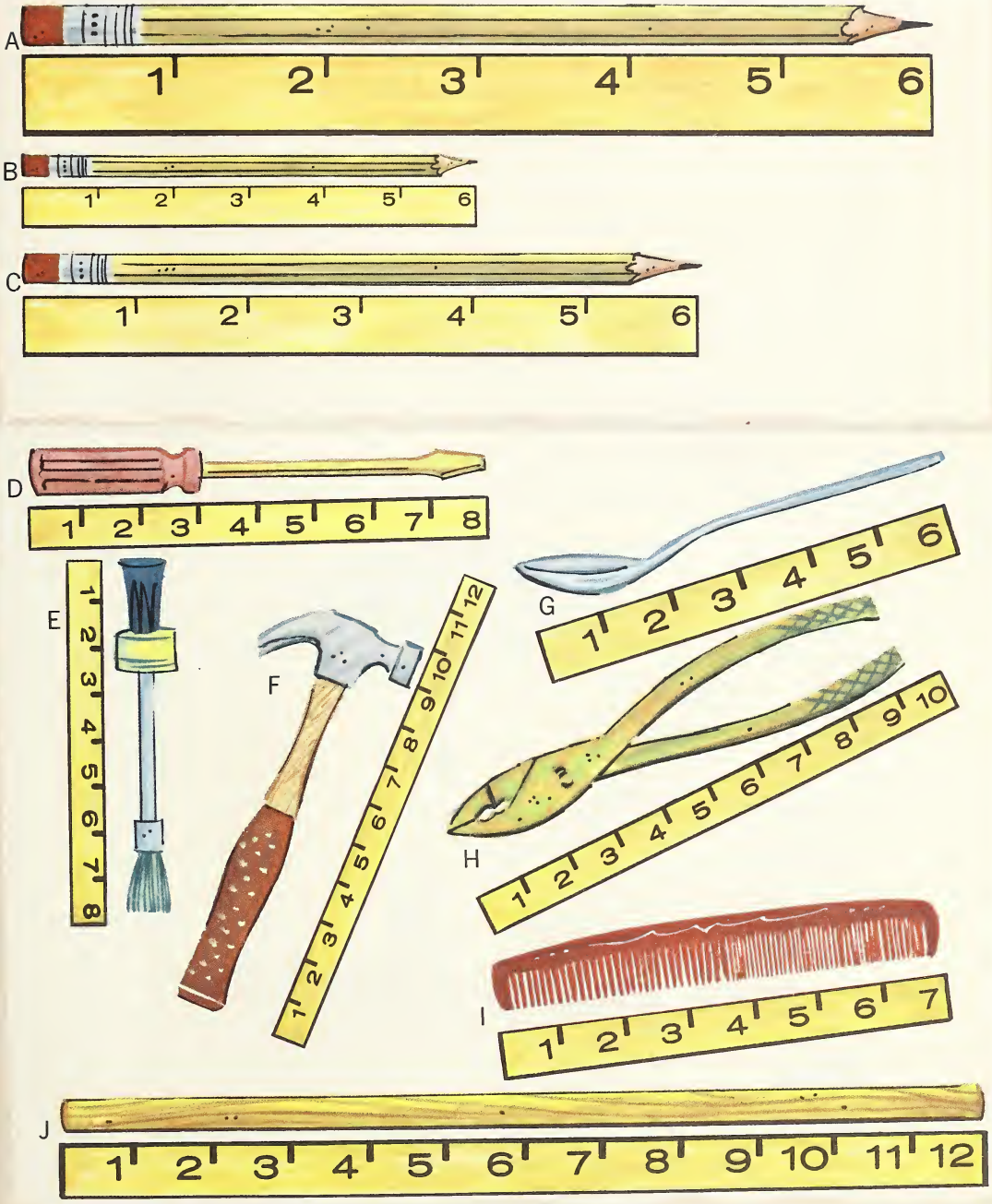
Y $8-5=$ ▢

Z $7+4=$ ▢

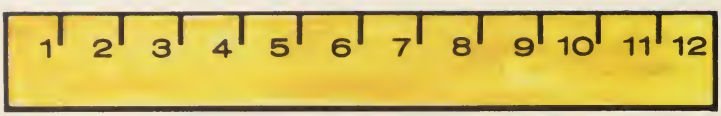
Additive action and subtractive action—sentences of the forms $3+2=$ ▢, $6-4=$ ▢, ▢ $+3=5$, and ▢ $-3=2$, sums, minuends, products, and dividends through 12

A
1 inch
B
C
D
E
F
G
H
I
J
K
L
M

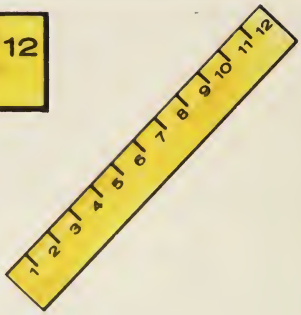

A
B
C
D
E
F
G
I
H
J

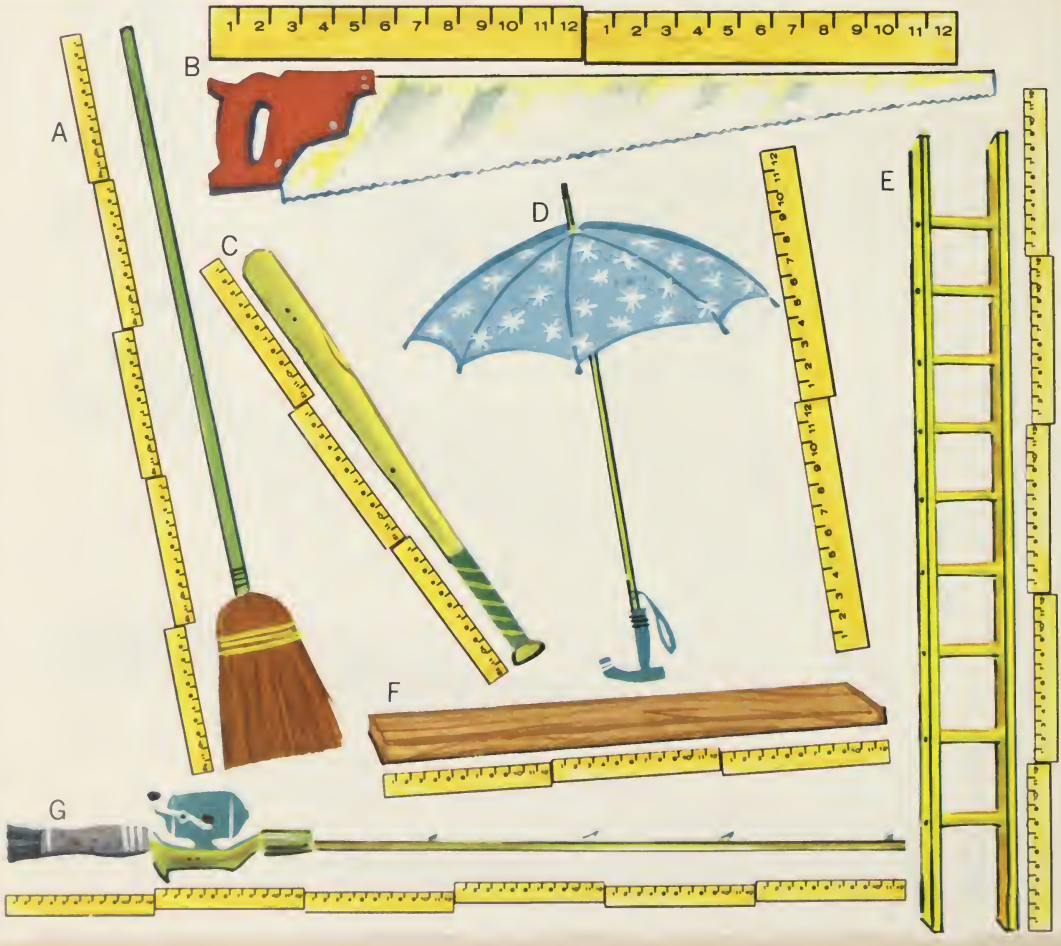


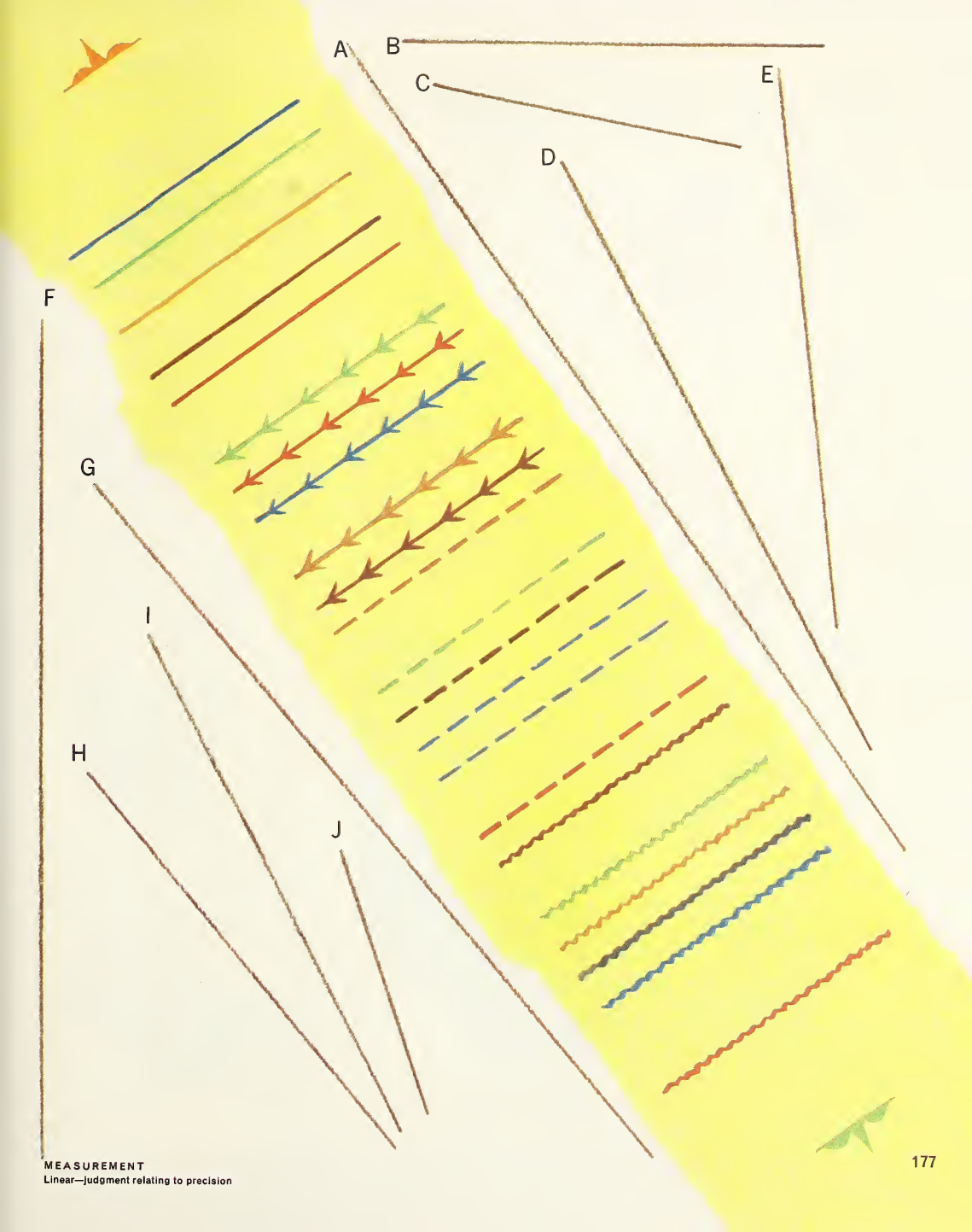
MEASUREMENT
Linear—the inch as a standard unit of measure; scale drawing



1 foot is as long as 12 inches.







MEASUREMENT
Linear—judgment relating to precision

7
6
5
4
3
2
1
1pint
1pint
MILK
MILK
1
2
3

A

1pint
MILK
MILK

B

pint

C

pint

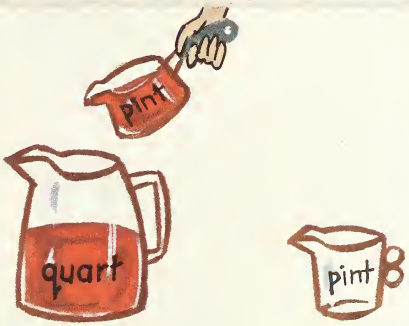
D

pint

E

A

B



C

1 quart is as much as 2 pints.

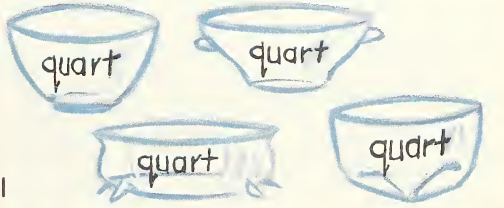
D

E

F

G

H



I

A
B
pint
C
D
E
F
pint
G
H
quart

pint
pint
pint
pint
quart
quart

A

pint
pint
pint
pint

B

quart
quart
pint
quart
quart
quart

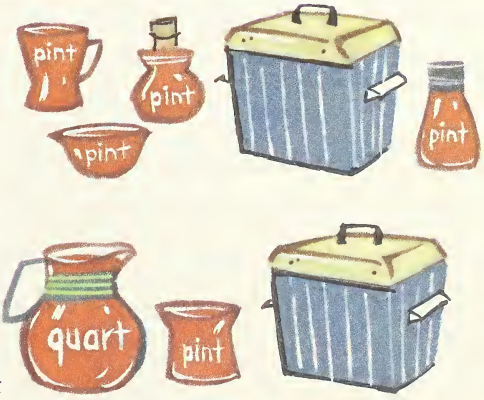
C

quart
pint
pint
quart
quart

D

quart
pint
quart
pint

E


pint
pint
pint
pint
quart
pint

F

Test 1

A Susan had 9 pictures of dogs. She gave 3 of the pictures to Jane. How many pictures of dogs did Susan have then?

B After Don was given 4 quarters, he had 7 quarters in all. How many quarters did Don have before he was given the 4?

C Nancy had 5 doll dresses. She bought 3 new doll dresses. How many doll dresses did Nancy have then?

D Some candy was in a box. After Jim ate 2 pieces, 6 pieces were in the box. How many pieces of candy were in the box before Jim ate the 2 pieces?

E Ann bought 2 pencils. Then she had 5 pencils. How many pencils did Ann have before she bought the 2?

F Tim had 8 boxes of apples to sell. He sold 6 of the boxes. How many boxes of apples did Tim have to sell then?

G After 6 ducks flew away, 4 ducks were in the pond. How many ducks were in the pond before the 6 flew away?

H Linda had 4 flowers. She picked 5 other flowers. How many flowers did Linda have then?

Test 2

A $1+7=\square$

B $8+2=\square$

C $5+1=\square$

D $2+7=\square$

E $1+9=\square$

F $2+3=\square$

G $5+4=\square$

H $2+5=\square$

I $1+3=\square$

J $4+2=\square$

K $6+6=\square$

L $9+1=\square$

M $3+2=\square$

N $6+1=\square$

O $4+5=\square$

P $7+4=\square$

Q $1+5=\square$

R $4+3=\square$

S $7+1=\square$

T $2+4=\square$

U $5+3=\square$

V $2+8=\square$

W $3+1=\square$

X $5+2=\square$

Y $7+5=\square$

Test 3

A 7+3=
B 2+6=
C 3+9=
D 6+4=
E 9+2=
F 3+4=
G 5+6=
H 7+5=
I 6+3=
J 4+7=
K 3+5=
L 8+4=
M 7+2=
N 8+3=
O 4+6=
P 3+8=
Q 5+7=
R 6+2=
S 3+7=
T 6+5=
U 4+8=
V 2+9=
W 3+6=
X 7+4=
Y 9+3=

Test 4

A 4−1=
B 6−4=
C 8−7=
D 7−1=
E 5−2=
F 10−9=
G 8−3=
H 7−4=
I 11−5=
J 6−1=
K 7−5=
L 10−2=
M 8−1=
N 5−3=
O 6−5=
P 10−1=
Q 6−2=
R 8−5=
S 7−3=
T 8−2=
U 9−3=
V 7−2=
W 11−7=
X 8−6=
Y 12−5=

Test 5

A 9−2=
B 11−8=
C 10−3=
D 12−4=
E 11−2=
F 12−6=
G 9−4=
H 10−6=
I 12−7=
J 11−4=
K 9−6=
L 10−8=
M 12−3=
N 11−6=
O 12−8=
P 10−7=
Q 9−3=
R 12−5=
S 11−9=
T 9−7=
U 10−4=
V 11−7=
W 9−5=
X 12−9=
Y 11−3=

Test 6

A 1+8=
B 2−1=
C 5+5=
D 4+1=
E 3−2=
F 2+2=
G 9−1=
H 10−5=
I 7−6=
J 3−1=
K 8−4=
L 1+2=
M 5−1=
N 6−3=
O 1+1=
P 9−8=
Q 1+4=
R 3+3=
S 4−2=
T 8+1=
U 5−4=
V 1+6=
W 4+4=
X 4−3=
Y 2+1=

Test 7

A $2 \times 3 =$ ▢
B $5 \times 2 =$ ▢
C $3 \times 3 =$ ▢
D $2 \times 4 =$ ▢
E $2 \times 2 =$ ▢
F $4 \times 3 =$ ▢
G $4 \times 2 =$ ▢
H $2 \times 6 =$ ▢
I $3 \times 2 =$ ▢
J $2 \times 5 =$ ▢
K $3 \times 4 =$ ▢
L $6 \times 2 =$ ▢

Test 8

A $8 \div 2 =$ ▢
B $10 \div 5 =$ ▢
C $4 \div 2 =$ ▢
D $12 \div 3 =$ ▢
E $6 \div 2 =$ ▢
F $8 \div 4 =$ ▢
G $12 \div 2 =$ ▢
H $9 \div 3 =$ ▢
I $12 \div 4 =$ ▢
J $6 \div 3 =$ ▢
K $10 \div 2 =$ ▢
L $12 \div 6 =$ ▢

Test 9

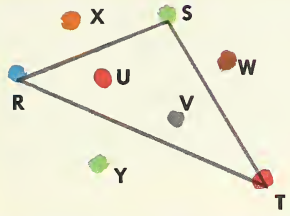
A 86 is one greater than ▢.
B 17 is one less than ▢.
C ▢ is one less than 186.
D 76 is between ▢ and 77.
E ▢ is one greater than 326.
F 61 is one greater than ▢.
G ▢ is between 111 and 113.
H 805 is one less than ▢.
I 547 is between 546 and ▢.
J ▢ is between 22 and 24.
K 258 is between ▢ and 259.
L 672 is one less than ▢.
M ▢ is one greater than 759.
N 584 is between ▢ and 585.
O ▢ is one less than 1.
P ▢ is between 599 and 601.
Q ▢ is one greater than 974.
R 399 is one less than ▢.
S 751 is between ▢ and 752.
T 501 is one greater than ▢.

Test 10

	is less than	is greater than	is equal to
A	$2+3$ ▢ $3+2$.		
B	369 ▢ 518.		
C	961 ▢ 619.		
D	400 ▢ 600.		
E	$6-5$ ▢ $8-7$.		
F		745 ▢ 745.	
G		$5+3$ ▢ $10-7$.	
H		$1+1$ ▢ $6-4$.	
I		$2+3$ ▢ 3×2.	
J		205 ▢ 250.	
K			$4+8$ ▢ $8+4$.
L			$12-5$ ▢ 3×2.
M			$2+4$ ▢ $9-2$.
N			2×2 ▢ $3+4$.
O			$8 \div 2$ ▢ $12 \div 4$.

Test 11

A Name points that are in line 1.
B Name points that are in line 2.
C What point is between point K and point M?
D What point is between point J and point L?
E What point is between point N and point O?
F Name segments that are in line 1.
G Name segments that are in line 2.



H This polygon has ▭ sides.
I Name the sides of this polygon.
J Name points that are inside the polygon.
K Name points that are outside the polygon.

Test 12

A 137 1 hundred ▭ tens ● ones
B 47 ▭ tens ● ones
C 361 ▭ hundreds ● tens 1 one
D 972 ▭ hundreds 7 tens ● ones
E 493 4 hundreds ▭ tens ● ones
F 218 ▭ hundreds 1 ten ● ones
G 52 ▭ tens ● ones
H 796 7 hundreds ▭ tens ● ones
I 284 ▭ hundreds ● tens 4 ones
J 824 ▭ hundreds ● tens 4 ones

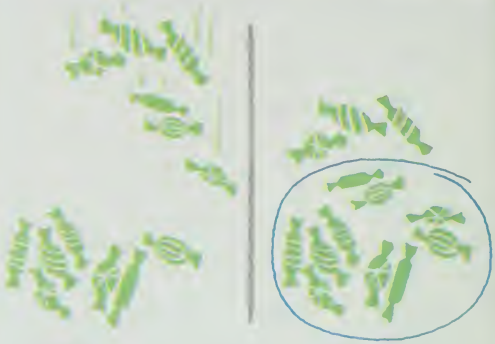
Test 13

A 1 nickel has a value of ▭¢.
B 1 dollar has a value of ▭¢.
C 1 quarter has a value of ▭¢.
D 1 half dollar has a value of ▭¢.
E 1 dime has a value of ▭¢.
F 1 ▭ has a value of 100¢.
G 1 ▭ has a value of 25¢.
H 1 foot is as long as ▭ inches.
I 1 quart is as much as ▭ pints.

Carol had 6 shells.
She found 7 other shells.
How many shells
did Carol have then?

$6+7=\square$

A $6+7=13$



Pete had 7 pieces of candy.
He bought 6 more pieces.
How many pieces of candy
did Pete have then?

$7+6=\square$

B $7+6=13$

13 whistles were in a box.
Dick took out 7 of them.
How many whistles were left
in the box?

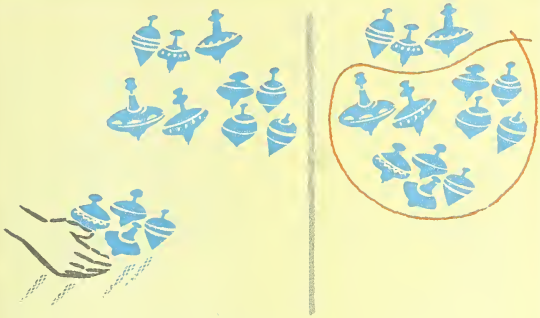
C $13-7=\square$

$13-7=6$

Nancy had 13 bells.
She gave 6 of them to Ann.
How many bells
did Nancy have left?

$13-6=\square$

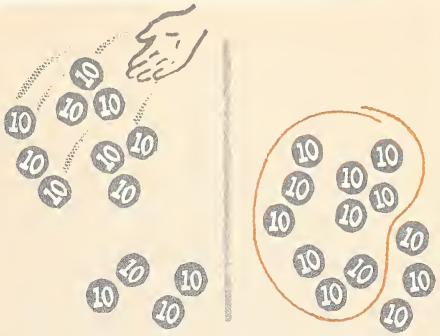
D $13-6=7$



9 tops were in a box.
Jack put 4 new tops with them.
Then how many tops
were in the box?

$9+4=\square$

A $9+4=13$



Sue had 4 dimes.
She was given 9 more dimes.
Then Sue had how many dimes?

$4+9=\square$

$4+9=13$

B

13 cans were on the table.
Mother took 4 of them away.
How many cans were left
on the table?

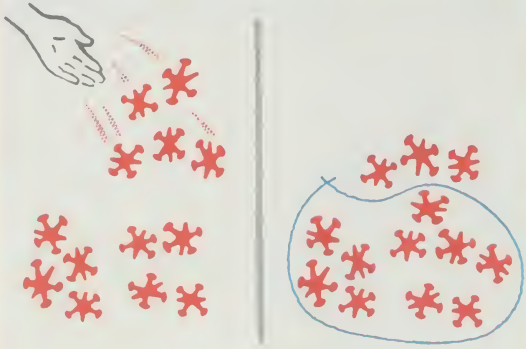
$13-4=\square$

C $13-4=9$

13 blocks were on the shelf.
Bob put 9 of them into a box.
Then how many blocks
were on the shelf?

$13-9=\square$

D $13-9=4$

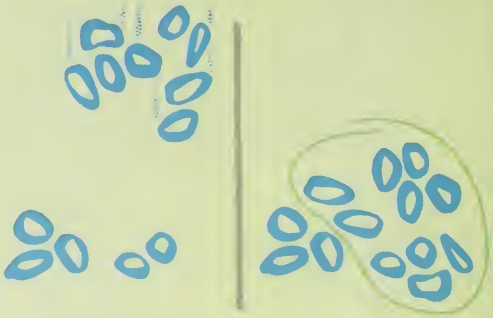


Jane had 8 jacks.
She was given 5 more.
Then Jane had how many jacks?

$8+5=\square$

$8+5=13$

A



Tom had 5 stones.
He found 8 other stones.
How many stones
did Tom have then?

$5+8=\square$

$5+8=13$

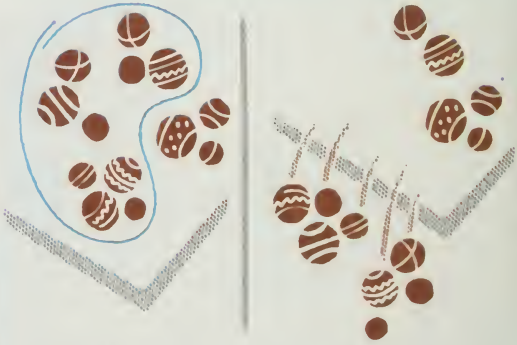
B

Jim had 13 marbles.
He gave 5 of them to Bob.
How many marbles
did Jim have left?

$13-5=\square$

$13-5=8$

C



13 balls were on a table.
8 of them fell off.
How many balls were left
on the table?

$13-8=\square$

$13-8=5$

D

A Tom had 7 toy firemen. He bought 6 new firemen. How many toy firemen did Tom have then?

B Susan had 13 colored pencils. She lost 4 of them. How many colored pencils did Susan have left?

C Some horses were in a field. After 8 horses joined them, 13 horses were in the field. How many horses were in the field to begin with?

D Don had some candy. After he ate 3 pieces, he had 9 pieces of candy left. How many pieces of candy did Don have before he ate the 3 pieces?

E There were 8 books on a shelf. Nancy put 5 other books with them. Then how many books were on the shelf?

F After 7 birds flew away, there were 5 birds in the tree. How many birds were in the tree to begin with?

G John picked 13 apples. He gave 8 of them to his mother. How many apples did John have left?

H Patty was given 4 quarters. Then she had 13 quarters. How many quarters did Patty have before she was given the 4?

A $6+5=\square$

B $\square+8=13$

C $8+4=\square$

D $13-8=\square$

E $\square-3=9$

F $8+5=\square$

G $12-4=\square$

H $7+6=\square$

I $\square+4=13$

J $13-6=\square$

K $\square-7=5$

L $13-4=\square$

A $13-8=\square$

B $4+9=\square$

C $7+6=\square$

D $13-4=\square$

E $13-6=\square$

F $5+8=\square$

G $9+3=\square$

H $13-9=\square$

I $8+5=\square$

J $13-7=\square$

K $13-5=\square$

L $6+7=\square$

M $9+4=\square$

KEEPING SKILFUL

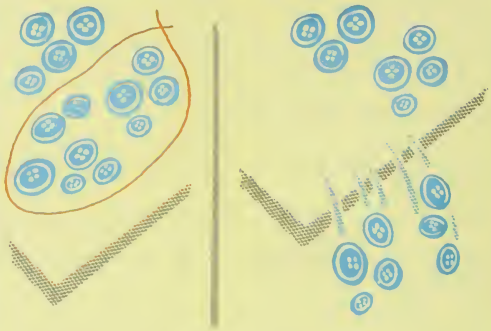
Additive action and subtractive action—sentences of the forms $3+2=\square$, $6-4=\square$, $\square+2=5$, and $\square-4=2$; sums and minuends through 13

Pete had 7 toy firemen.
He bought 7 more.
How many toy firemen
did Pete have then?

A

$7+7=\square$

$7+7=14$



Jane had 14 buttons.
She gave 7 of them to Ann.
How many buttons
did Jane have left?

B

$14-7=\square$

$14-7=7$

Don had 5 marbles.
He was given 9 more.
Then Don had how many marbles?

C

$5+9=\square$

$5+9=14$

9 toy cars were on a shelf.
John put 5 more with them.
Then how many toy cars
were on the shelf?

D

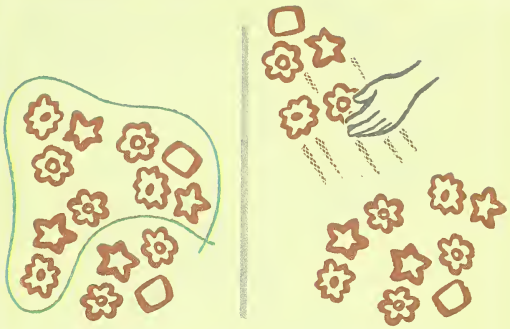
$9+5=\square$

$9+5=14$

14 shells were on the table.
Sue took 9 of them away.
How many shells were left
on the table?

$14-9=\square$

A $14-9=5$



14 cookies were on a plate.
Mother gave 5 of them to Tim.
Then how many cookies
were on the plate?

$14-5=\square$

B $14-5=9$

Sally had 6 leaves.
She found 8 other leaves.
How many leaves
did Sally have then?

$6+8=\square$

C $6+8=14$

8 crayons were in a box.
Nancy put 6 more with them.
Then how many crayons
were in the box?

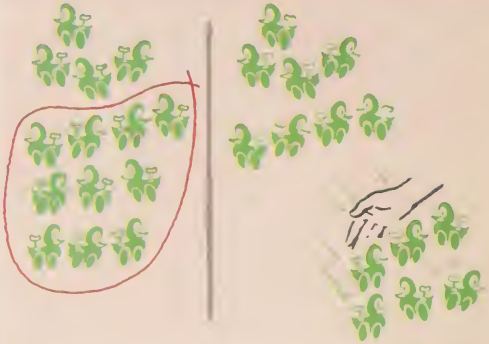
$8+6=\square$

D $8+6=14$

Bill had 14 dimes.
He used 8 dimes to buy a top.
How many dimes
did Bill have left?

$14-8=\square$

A $14-8=6$



14 toy ducks were on the table.
Patty took 6 of them away.
How many toy ducks
were on the table then?

$14-6=\square$

B $14-6=8$

A 14 lambs were in a field. 5 of them went into the barn. Then how many lambs were in the field?

B Jim found 8 stones. Then he had 14 stones. How many stones did Jim have before he found the 8?

C Susan had 4 flowers. She picked 9 more. How many flowers did Susan have then?

D Mrs. Brown made 14 toy clowns. She gave 7 of them away. How many toy clowns did Mrs. Brown have left?

A $13-5=\square$
B $4+9=\square$
C $14-6=\square$
D $7+6=\square$
E $7+7=\square$
F $14-5=\square$
G $8+6=\square$
H $13-7=\square$
I $5+9=\square$
J $\square+8=14$
K $8+5=\square$
L $14-7=\square$

E Ann colored some pictures. After she gave 6 of the pictures to her grandfather, she had 8 pictures left. How many pictures had Ann colored?

F Some birds were eating. After 7 birds joined them, 13 birds were eating. How many birds were eating to begin with?

G 14 toy trucks were on a table. Mr. Green sold 9 of them. Then how many toy trucks were on the table?

H Bob gave 5 of his toy animals to Sue. Then he had 8 toy animals left. How many toy animals did Bob have to begin with?

I 6 boys were playing ball. 8 other boys joined them. How many boys were playing ball then?

J 13 doll chairs were in the dollhouse. Sally took out 7 of them. How many chairs were in the dollhouse then?

K John used 8 of his pennies to buy a pencil. Then he had 6 pennies. How many pennies did John have before he bought the pencil?

L Linda put 5 apples into a box. Then 14 apples were in the box. How many apples were in the box to begin with?

A $\square + 5 = 14$
B $\square - 6 = 8$
C $5 + 9 = \square$
D $13 - 6 = \square$
E $\square - 5 = 8$
F $14 - 7 = \square$
G $\square + 7 = 13$
H $9 + 5 = \square$
I $\square - 8 = 6$
J $13 - 7 = \square$
K $14 - 9 = \square$
L $6 + 8 = \square$

A $14 - 5 = \square$
B $14 - 7 = \square$
C $8 + 6 = \square$
D $13 - 8 = \square$
E $5 + 9 = \square$
F $14 - 8 = \square$
G $7 + 7 = \square$
H $8 + 5 = \square$
I $14 - 9 = \square$
J $13 - 4 = \square$
K $6 + 8 = \square$
L $9 + 5 = \square$
M $14 - 6 = \square$

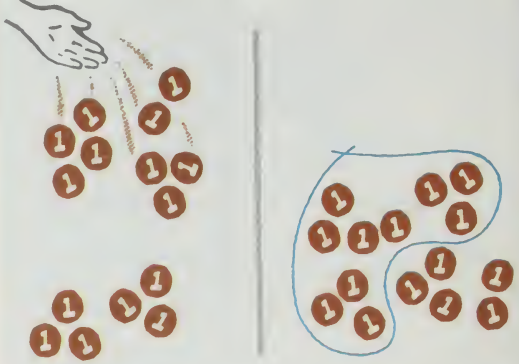
KEEPING SKILFUL
Additive action and subtractive action—sentences of the forms $3 + 2 = \square$, $6 - 4 = \square$, $\square + 2 = 5$, and $\square - 4 = 2$; sums and minuends through 14

9 cans were on the table.
Jim put 6 more cans with them.
How many cans
were on the table then?

A

$9+6=\square$

$9+6=15$

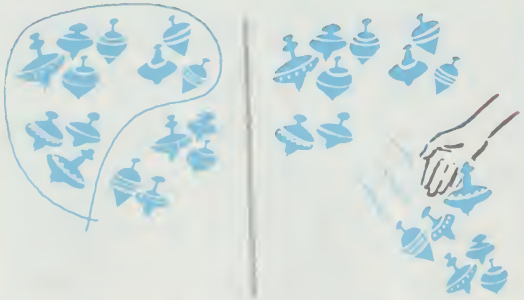


Carol had 6 pennies.
Father gave her 9 new pennies.
How many pennies
did Carol have then?

$6+9=\square$

B

$6+9=15$



Mr. Bell had 15 tops to sell.
He sold 6 of them.
How many tops
did he have left to sell?

$15-6=\square$

C

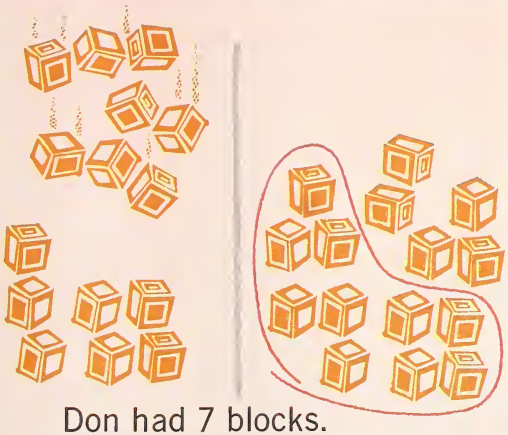
$15-6=9$

15 pencils were in a box.
Linda took out 9 of them.
Then how many pencils
were in the box?

$15-9=\square$

D

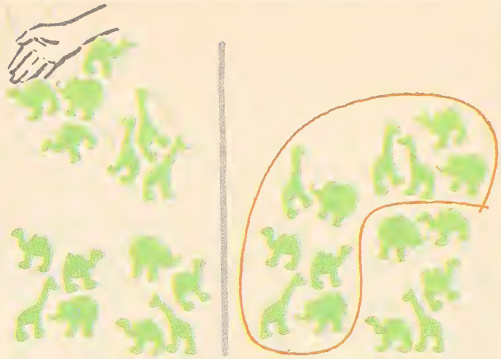
$15-9=6$



Don had 7 blocks.
He bought 8 new blocks.
How many blocks
did Don have then?

A $7+8=\square$

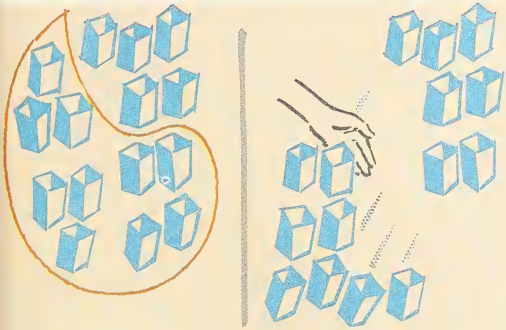
$7+8=15$



Nancy had 8 toy animals.
She was given 7 more.
Then Nancy had
how many toy animals?

B $8+7=\square$

$8+7=15$



15 boxes were on the table.
Bob put 8 of them away.
How many boxes
were left on the table?

C $15-8=\square$

$15-8=7$

15 apples were in a basket.
Mother used 7 of the apples.
Then how many apples
were in the basket?

D $15-7=\square$

$15-7=8$

A Susan had some buttons. She used 8 of them for a doll dress. Then she had 7 buttons left. How many buttons did Susan have to begin with?

B Mrs. Bell had 6 flowers. She picked 8 more flowers. How many flowers did Mrs. Bell have then?

C After Mr. Brown bought 9 ponies, he had 15 ponies in all. How many ponies did he have before he bought the 9?

D There were 15 pencils in a box. John took out 8 of the pencils. How many pencils were left in the box?

E Some boys were playing ball. After 6 of the boys went home, 9 boys were playing. How many boys were playing ball to begin with?

F Jim was given 7 dollars. Then he had 15 dollars. How many dollars did Jim have before he was given the 7?

G Nancy had 9 paper hats. She made 5 more paper hats. How many paper hats did Nancy have then?

H 15 lambs were in the field. 6 of them went into the barn. Then how many lambs were in the field?

A $\square + 9 = 15$

B $9 + 5 = \square$

C $7 + 6 = \square$

D $\square - 8 = 7$

E $15 - 6 = \square$

F $5 + 9 = \square$

G $15 - 8 = \square$

H $5 + 8 = \square$

I $\square + 7 = 15$

J $6 + 8 = \square$

K $7 + 8 = \square$

L $\square - 6 = 9$

A $14 - 8 = \square$

B $6 + 9 = \square$

C $13 - 9 = \square$

D $8 + 7 = \square$

E $15 - 9 = \square$

F $8 + 6 = \square$

G $15 - 8 = \square$

H $9 + 6 = \square$

I $9 + 4 = \square$

J $15 - 7 = \square$

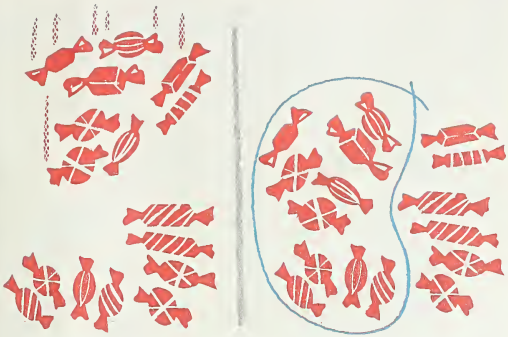
K $14 - 6 = \square$

L $7 + 8 = \square$

M $15 - 6 = \square$

KEEPING SKILFUL

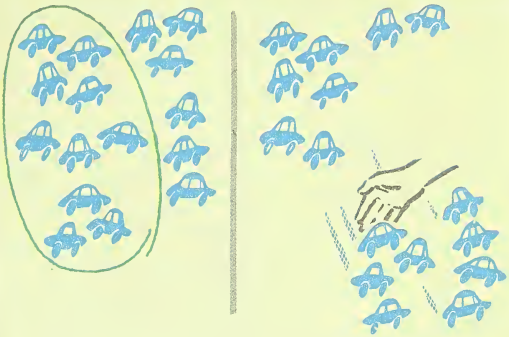
Additive action and subtractive action—sentences of the forms $3 + 2 = \square$, $6 - 4 = \square$, $\square + 2 = 5$, and $\square - 4 = 2$; sums and minuends through 15



Susan had 8 pieces of candy.
She bought 8 more pieces.
How many pieces of candy
did Susan have then?

A $8+8=\square$

$8+8=16$



16 toy cars were in a box.
Don took 8 cars out of the box.
How many toy cars
were left in the box?

$16-8=\square$

B $16-8=8$

Ann had 7 buttons.
She found 9 other buttons.
Then Ann had how many buttons?

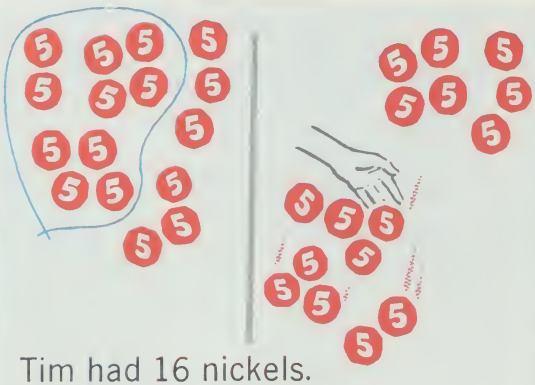
$7+9=\square$

C $7+9=16$

Bill had 9 dimes.
He was given 7 more dimes.
How many dimes
did Bill have then?

$9+7=\square$

D $9+7=16$

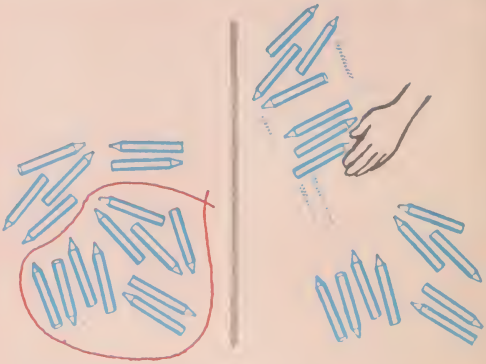


Tim had 16 nickels.
He used 9 of his nickels
to buy a kite.
Then Tim had how many nickels?

A

$16-9=\square$

$16-9=7$



16 crayons were on the table.
Jack took 7 of them away.
How many crayons
were on the table then?

B

$16-7=\square$

$16-7=9$

A 9 girls were playing in the yard. 7 other girls joined them. Then how many girls were in the yard?

B There were 15 jacks on the table. Nancy took 9 of them away. How many jacks did she leave on the table?

C Mr. Long sold 9 of his cows. Then he had 7 cows. How many cows did he have before he sold the 9?

D After Ann bought 8 doll chairs, she had 16 chairs in all. How many doll chairs did Ann have before she bought the 8?

A $\square-9=7$

B $16-8=\square$

C $7+9=\square$

D $6+7=\square$

E $15-9=\square$

F $16-7=\square$

G $8+8=\square$

H $9+7=\square$

I $8+5=\square$

J $\square+8=16$

K $15-6=\square$

L $16-9=\square$

E Bob counted 16 crows in the garden. 7 of the crows flew away. Then how many crows were in the garden?

F 7 cookies were on a plate. Jane put 8 more cookies with them. How many cookies were on the plate then?

G Carol was given 9 storybooks. Then she had 16 storybooks in all. How many storybooks did Carol have before she was given the 9?

H 16 toy horns were on the table. John put 8 of them into a box. How many toy horns were left on the table?

I After Jack used 6 of his half dollars to buy a toy truck, he had 9 half dollars left. How many half dollars did Jack have before he bought the truck?

J After 7 ponies came into the field, 16 ponies were in the field. How many ponies were in the field to begin with?

K There were 6 footballs in a box. Mr. Bell put 7 other footballs with them. Then how many footballs were in the box?

L Don found some shells. After he gave 8 of them to his brother, he had 8 shells left. How many shells had Don found?

A $16-8=\square$

B $\square+7=16$

C $4+9=\square$

D $\square-6=9$

E $16-9=\square$

F $\square-8=8$

G $7+8=\square$

H $14-5=\square$

I $\square+9=16$

J $8+8=\square$

K $16-7=\square$

L $6+7=\square$

A Add 7 to 8.

B Subtract 9 from 16.

C Subtract 7 from 15.

D Add 9 to 7.

E Add 8 to 5.

F Subtract 4 from 13.

G Add 8 to 8.

H Subtract 7 from 16.

I Subtract 9 from 15.

J Add 9 to 6.

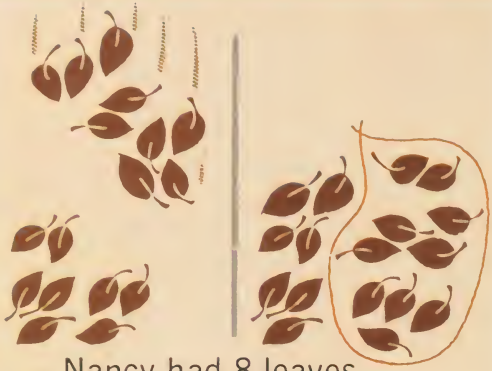
K Subtract 8 from 16.

L Add 7 to 9.

M Add 7 to 7.

KEEPING SKILFUL

Additive action and subtractive action—sentences of the forms $3+2=\square$, $6-4=\square$, $\square+2=5$, and $\square-4=2$; sums and minuends through 16



Nancy had 8 leaves.
Sue gave her 9 more.
How many leaves
did Nancy have then?

A

$8+9=\square$

$8+9=17$

9 marbles were in a box.
Bob put 8 new marbles with them.
Then how many marbles
were in the box?

B

$9+8=\square$

$9+8=17$

Mr. Green had 17 shells.
He gave 9 of them to Jim.
How many shells
did Mr. Green have left?

C

$17-9=\square$

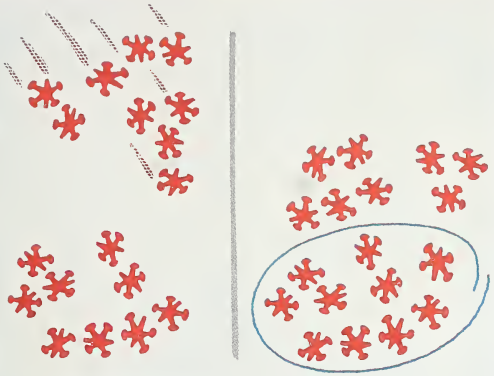
$17-9=8$

17 stones were on the shelf.
Sally took 8 of them away.
Then how many stones
were on the shelf?

D

$17-8=\square$

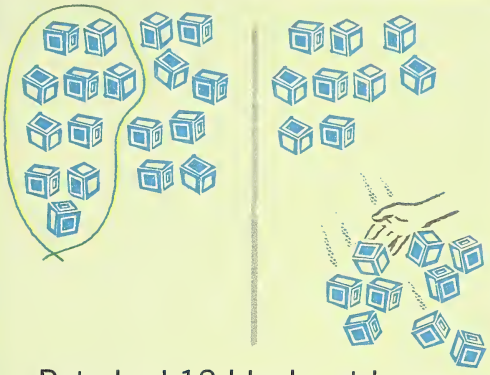
$17-8=9$



Patty had 9 jacks.
She was given 9 more.
How many jacks
did Patty have then?

A $9+9=\square$

$9+9=18$



Pete had 18 blocks at home.
He took 9 of them to school.
How many blocks
did Pete leave at home?

$18-9=\square$

B $18-9=9$

A Nine lambs were in a pen. Eight other lambs joined them. Then how many lambs were in the pen?

B Grandfather made 18 whistles. He gave nine of the whistles away. How many whistles did Grandfather have then?

C Carol had nine nickels. She was given six more nickels for her birthday. How many nickels did Carol have then?

D 17 toy train cars were in a box. Dick took out eight of them. How many train cars did Dick leave in the box?

A $17-8=\square$

B $6+9=\square$

C $18-9=\square$

D $15-7=\square$

E $8+9=\square$

F $15-6=\square$

G $9+8=\square$

H $8+7=\square$

I $15-9=\square$

J $17-9=\square$

K $9+6=\square$

L $9+9=\square$

E After six balls fell off, eight balls were left on the shelf. How many balls were on the shelf before the six fell off?

F Some fish were in a pond. Don put nine other fish with them. Then 17 fish were in the pond. How many fish were in the pond to begin with?

G 13 toy wagons were on a table. Bob bought six of the wagons. Then how many wagons were on the table?

H Mr. Brown sold seven cans of paint. Then he had nine cans left to sell. How many cans of paint did Mr. Brown have to sell before he sold the seven cans?

I Patty had nine colored pencils. She bought six new colored pencils. How many colored pencils did Patty have then?

J After Mrs. Bell picked nine apples, she had 18 apples in all. How many apples did she have before she picked the nine?

K After Father gave Ann nine pennies, he had eight pennies left. How many pennies did Father have to begin with?

L Jim found five shells. Then he had 14 shells in all. How many shells did Jim have before he found the five?

A $13-6=\square$
B $\square-9=8$
C $18-9=\square$
D $\square-6=8$
E $\square+9=18$
F $9+6=\square$
G $16-8=\square$
H $\square+9=17$
I $9+7=\square$
J $\square+5=14$
K $\square-7=9$
L $8+9=\square$

A $16-7=\square$
B $9+8=\square$
C $13-5=\square$
D $8+6=\square$
E $7+9=\square$
F $17-8=\square$
G $8+5=\square$
H $16-9=\square$
I $14-5=\square$
J $17-9=\square$
K $9+4=\square$
L $14-6=\square$
M $8+9=\square$

KEEPING SKILFUL
Additive action and subtractive action—sentences of the forms $3+2=\square$, $6-4=\square$, $\square+2=5$, and $\square-4=2$; sums and minuends through 18

A $14-9=$ ☐
B $8+8=$ ☐
C $4+9=$ ☐
D $16-7=$ ☐
E $9+8=$ ☐
F $14-6=$ ☐
G $6+7=$ ☐
H $15-8=$ ☐
I $9+6=$ ☐
J $13-4=$ ☐
K $16-8=$ ☐
L $8+5=$ ☐
M $17-8=$ ☐
N $5+9=$ ☐
O $13-8=$ ☐
P $9+7=$ ☐

A $13-7=$ ☐
B $16-9=$ ☐
C $7+8=$ ☐
D $13-9=$ ☐
E $5+8=$ ☐
F $17-9=$ ☐
G $13-6=$ ☐
H $9+5=$ ☐
I $15-6=$ ☐
J $9+4=$ ☐
K $7+9=$ ☐
L $14-7=$ ☐
M $7+6=$ ☐
N $18-9=$ ☐
O $8+9=$ ☐
P $13-5=$ ☐

A Subtract 5 from 14.
B 3 times 4 is equal to ☐.
C 6 plus 9 is equal to ☐.
D 9 divided by 3 is equal to ☐.
E 14 minus 8 is equal to ☐.
F Add 7 to 9.
G Add 8 to 6.
H 2 multiplied by 5 is equal to ☐.
I 15 minus 7 is equal to ☐.
J 2 times 2 is equal to ☐.
K 3 multiplied by 4 is equal to ☐.
L 8 plus 6 is equal to ☐.
M 4 times 2 is equal to ☐.
N 9 plus 9 is equal to ☐.
O Subtract 9 from 15.
P 12 divided by 2 is equal to ☐.
Q 2 times 3 is equal to ☐.
R 8 plus 7 is equal to ☐.
S 12 divided by 4 is equal to ☐.
T Subtract 5 from 13.
U 10 divided by 5 is equal to ☐.
V 7 plus 7 is equal to ☐.

A
$$4+2+7$$
$$4+(2+7)=(4+2)+7$$
$$4+9=6+7$$
$$13$$

B $6+3+5$
C $4+1+8$
D $7+2+6$
E $5+1+8$
F $7+2+7$
G $3+4+5$
H $5+2+6$
I $8+1+8$

A

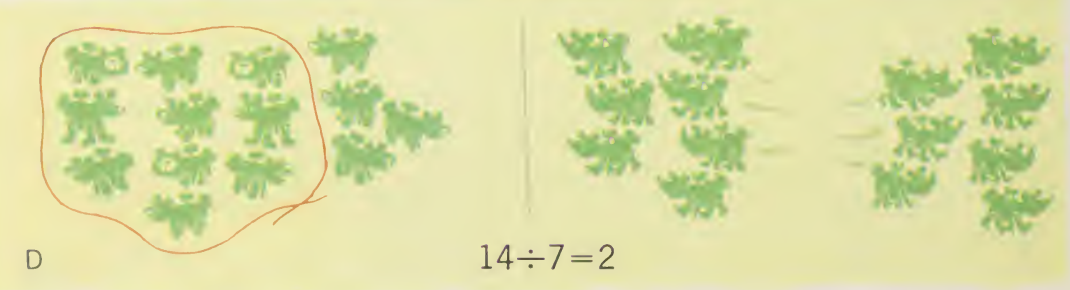
$7 \times 2 = 14$

B

$2 \times 7 = 14$

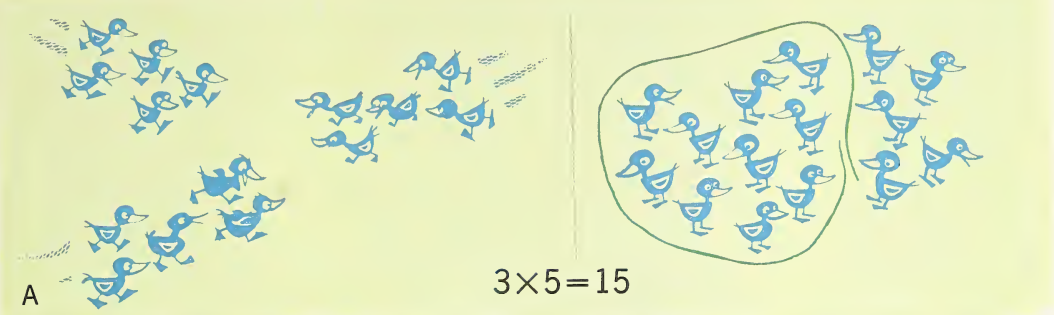
C

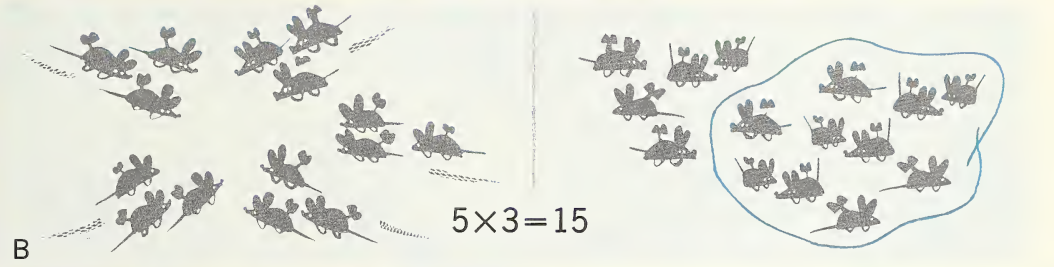
$14 \div 2 = 7$

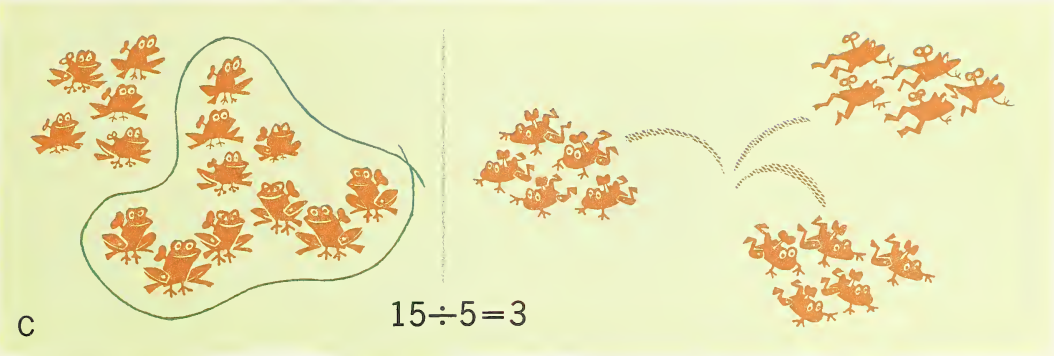


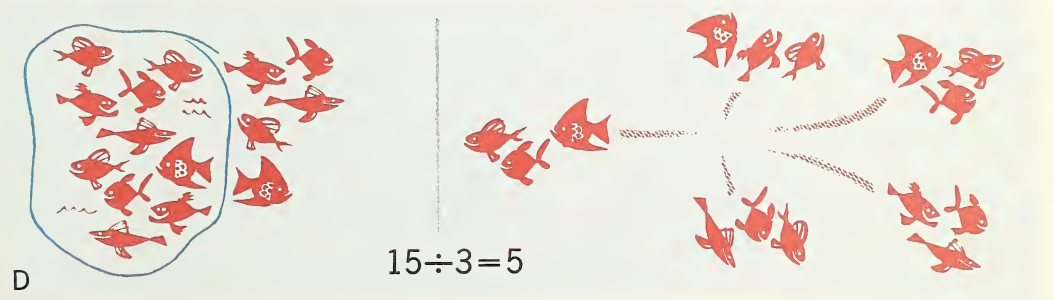
D

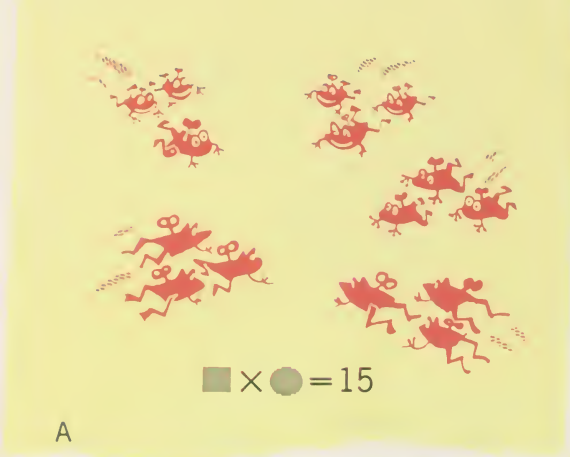
$14 \div 7 = 2$


A
3×5=15


B
5×3=15

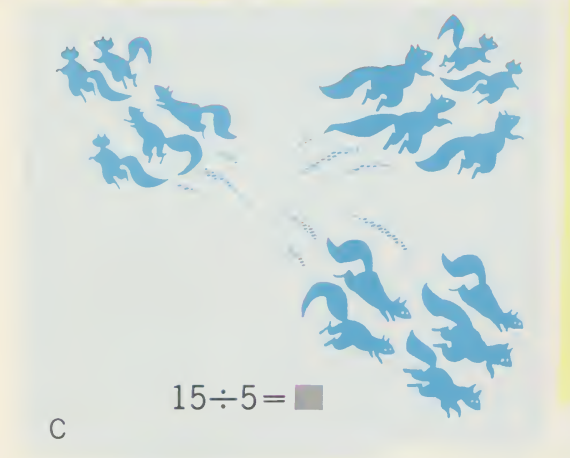

C
15÷5=3


D
15÷3=5



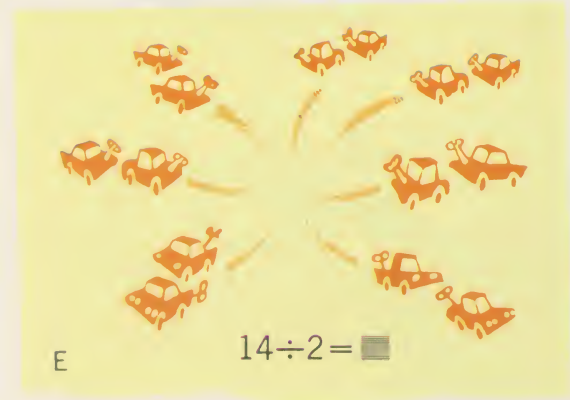
A

B



C

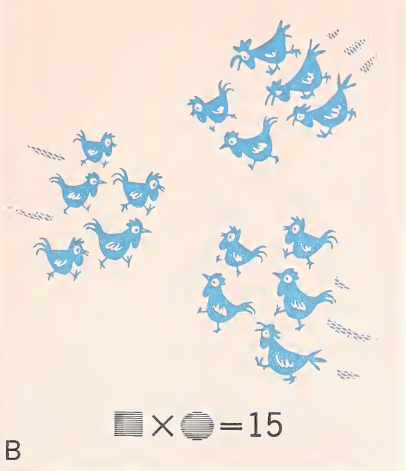
D



E

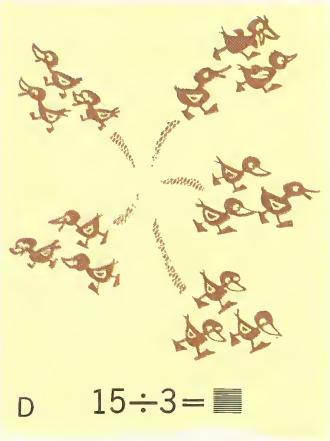
F

A $14 \div 7 = \square$

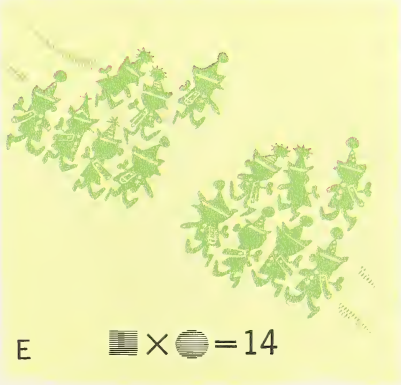


B $\square \times \bigcirc = 15$

C $12 \div 4 = \square$



D $15 \div 3 = \square$

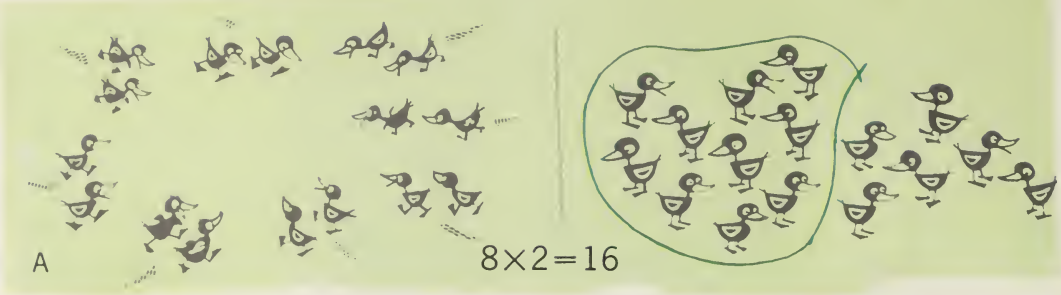


E $\square \times \bigcirc = 14$

F $14 \div 2 = \square$

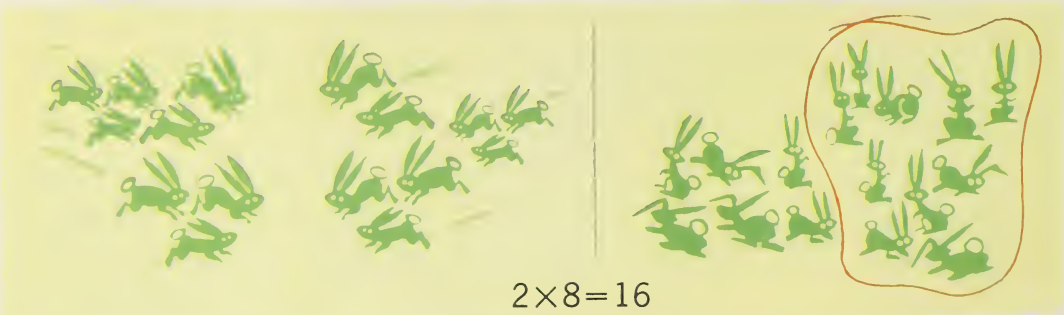
A $15 \div 5 = \square$
B $2 \times 7 = \square$
C $6 + 9 = \square$
D $5 \times 3 = \square$
E $14 - 6 = \square$
F $7 \times 2 = \square$
G $15 - 7 = \square$
H $3 \times 5 = \square$
I $14 \div 7 = \square$
J $6 + 8 = \square$
K $15 \div 3 = \square$
L $14 \div 2 = \square$
M $8 + 7 = \square$
N $2 \times 7 = \square$
O $15 \div 5 = \square$
P $14 - 9 = \square$
Q $14 \div 7 = \square$
R $15 - 6 = \square$
S $3 \times 5 = \square$
T $14 \div 2 = \square$
U $7 + 7 = \square$
V $15 \div 3 = \square$
W $7 \times 2 = \square$
X $15 - 8 = \square$
Y $5 \times 3 = \square$

EXTENSION
Sums, minuends, products, and dividends through 15



A

$8 \times 2 = 16$



B

$2 \times 8 = 16$

C

$16 \div 2 = 8$

D

$16 \div 8 = 2$

A

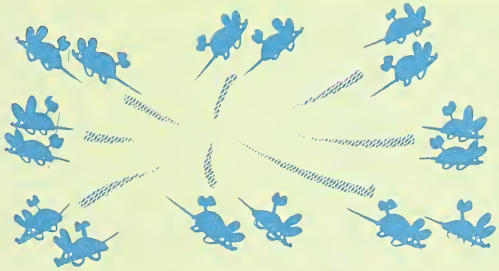
$4 \times 4 = 16$

B

$16 \div 4 = 4$

C

$\square \times \bigcirc = 16$



D

$16 \div 2 = \square$

E

$\square \times \bigcirc = 16$

F

$16 \div 8 = \square$

A $16 \div 8 = \square$

B $7 + 8 = \square$

C $8 \times 2 = \square$

D $7 + 9 = \square$

E $16 \div 4 = \square$

F $14 - 5 = \square$

G $15 \div 3 = \square$

H $2 \times 8 = \square$

I $16 - 7 = \square$

J $7 \times 2 = \square$

K $16 \div 2 = \square$

L $4 \times 4 = \square$

M $5 + 9 = \square$

N $8 + 8 = \square$

O $16 \div 4 = \square$

P $2 \times 8 = \square$

Q $9 + 7 = \square$

R $3 \times 5 = \square$

S $16 \div 2 = \square$

T $9 + 6 = \square$

U $16 - 8 = \square$

V $8 \times 2 = \square$

W $16 - 9 = \square$

X $16 \div 8 = \square$

Y $8 + 6 = \square$

Z $4 \times 4 = \square$

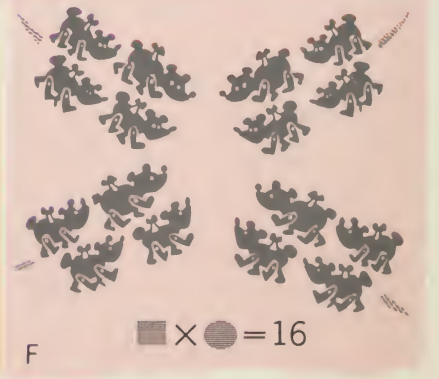
A $16 \div 2 = \square$

B $\square \times \bigcirc = 16$

C $16 \div 4 = \square$

D $16 \div 8 = \square$

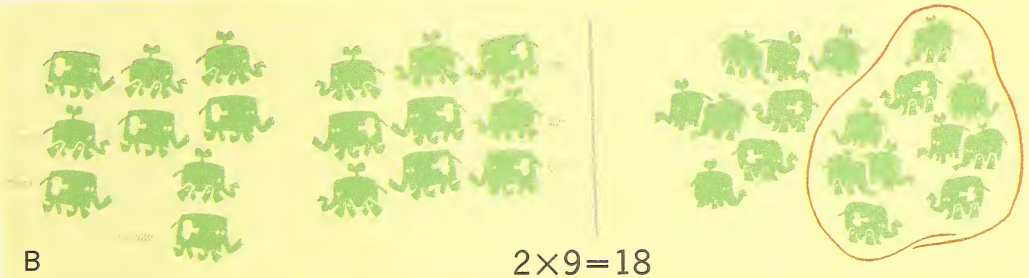
E $\square \times \bigcirc = 16$



F $\square \times \bigcirc = 16$

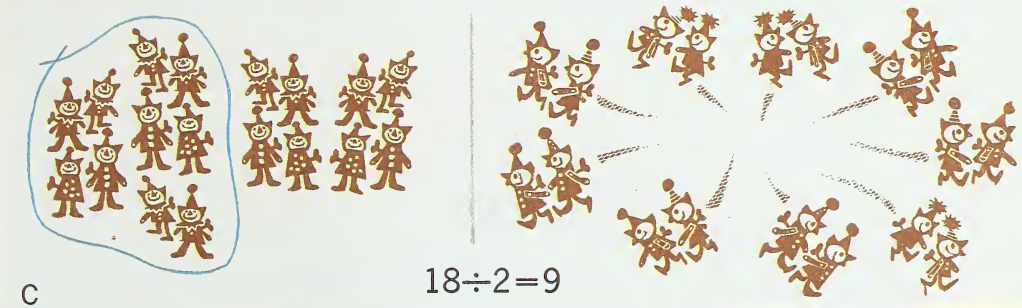
A

$9 \times 2 = 18$



B

$2 \times 9 = 18$

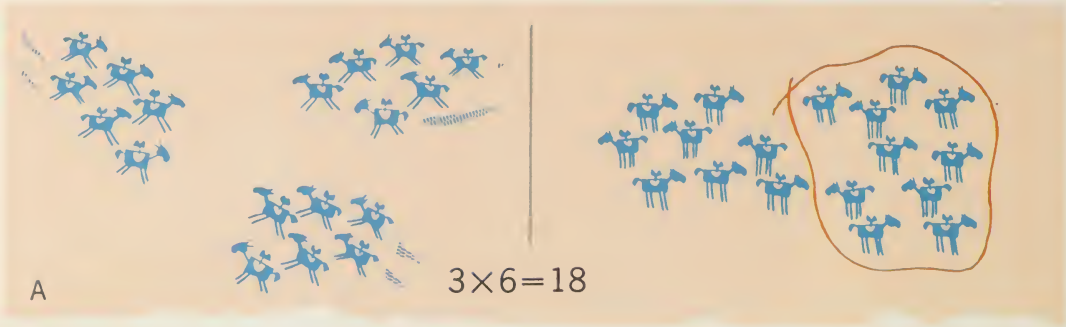


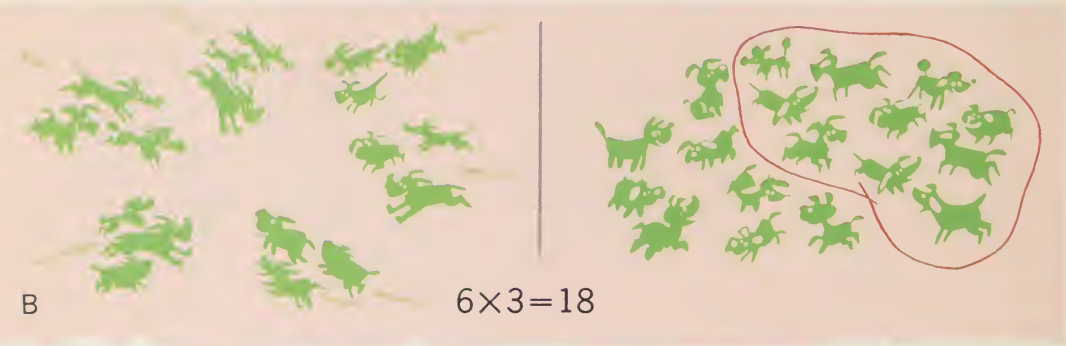
C

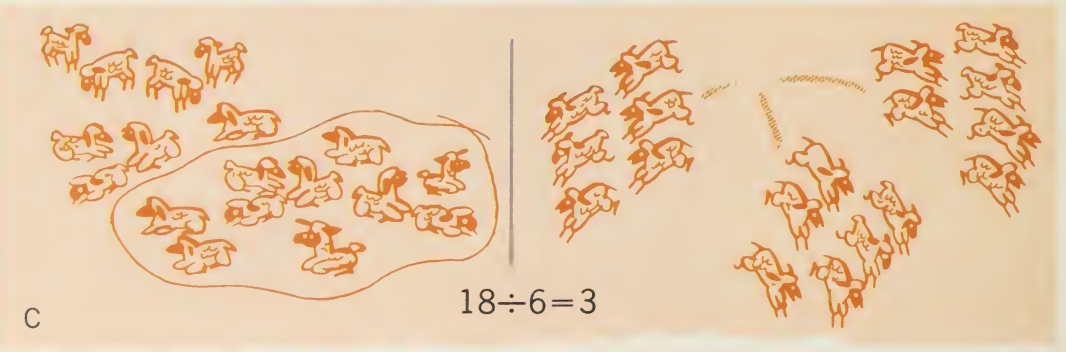
$18 \div 2 = 9$

D

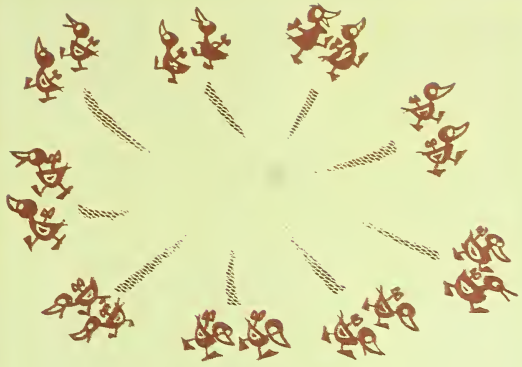
$18 \div 9 = 2$


A
3×6=18

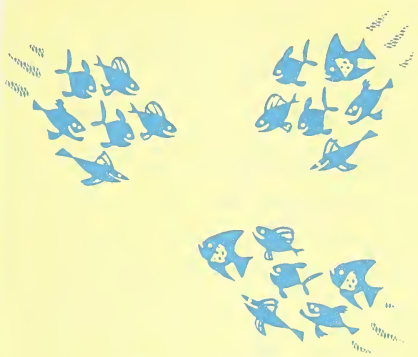

B
6×3=18


C
18÷6=3

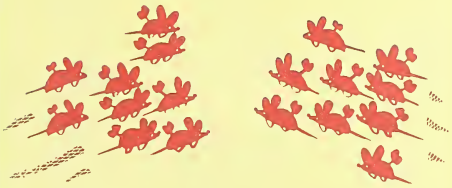
D
18÷3=6



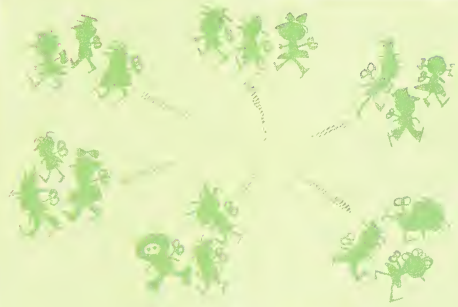
A $18 \div 2 = \square$



B $\square \times \bigcirc = 18$

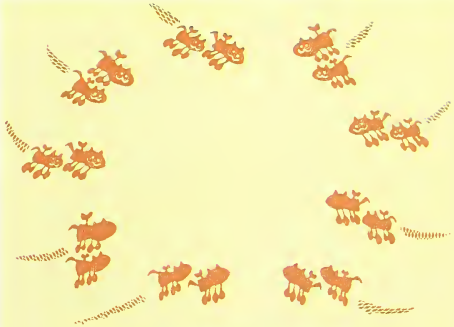


C $\square \times \bigcirc = 18$



D $18 \div 3 = \square$

E $18 \div 6 = \square$



F $\square \times \bigcirc = 18$

A $18 \div 2 = \square$

B $3 \times 6 = \square$

C $9 + 8 = \square$

D $18 \div 3 = \square$

E $2 \times 9 = \square$

F $16 \div 4 = \square$

G $18 \div 6 = \square$

H $17 - 9 = \square$

I $3 \times 6 = \square$

J $18 \div 9 = \square$

K $5 \times 3 = \square$

L $9 \times 2 = \square$

M $8 + 9 = \square$

N $6 \times 3 = \square$

O $18 - 9 = \square$

P $8 \times 2 = \square$

Q $2 \times 9 = \square$

R $15 \div 5 = \square$

S $18 \div 2 = \square$

T $18 \div 6 = \square$

U $9 + 9 = \square$

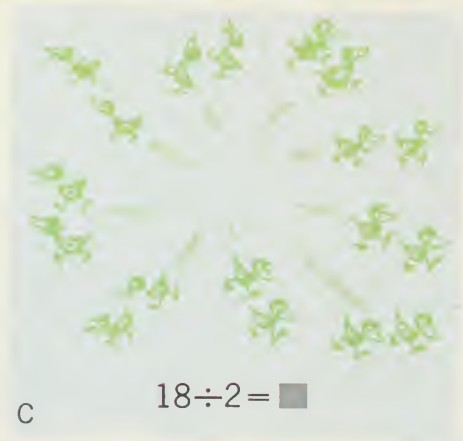
V $9 \times 2 = \square$

W $17 - 8 = \square$

X $6 \times 3 = \square$

Y $18 \div 9 = \square$

Z $18 \div 3 = \square$



Test 1

A 8+7=
B 4+9=
C 6+8=
D 9+7=
E 8+8=
F 8+5=
G 7+9=
H 6+8=
I 9+4=
J 7+8=
K 5+9=
L 9+8=
M 7+6=
N 6+9=
O 7+7=
P 5+8=
Q 9+9=
R 8+6=
S 9+8=
T 9+4=
U 7+8=
V 9+6=
W 6+7=
X 8+9=
Y 9+5=

Test 2

A 13−8=
B 16−9=
C 14−6=
D 15−9=
E 13−4=
F 17−8=
G 14−9=
H 13−7=
I 15−6=
J 14−8=
K 16−7=
L 13−5=
M 18−9=
N 14−7=
O 15−9=
P 16−8=
Q 13−6=
R 15−7=
S 14−9=
T 17−9=
U 13−5=
V 15−8=
W 16−9=
X 14−5=
Y 13−9=

Test 3

A 8×2=
B 4×3=
C 3×6=
D 2×7=
E 5×3=
F 9×2=
G 4×4=
H 2×8=
I 6×3=
J 7×2=
K 3×5=
L 2×9=

Test 4

A 18÷6=
B 16÷2=
C 15÷3=
D 14÷7=
E 18÷2=
F 15÷5=
G 16÷4=
H 12÷3=
I 18÷9=
J 14÷2=
K 18÷3=
L 16÷8=

Test 5

A 7+6=
B 17−9=
C 13−4=
D 3×6=
E 9+5=
F 16÷4=
G 7+9=
H 14−8=
I 7×2=
J 5+8=
K 15−6=
L 18÷3=
M 8+7=
N 13−6=
O 6+9=
P 5×3=
Q 16−7=
R 14−5=
S 14÷2=
T 8+6=
U 15÷5=
V 15−7=
W 9×2=
X 16÷8=
Y 9+7=

CHECKING UP
Sums, minuends, products, and dividends through 18

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5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 R 70 69 68 67

QA 135 H332 1964 BK-2
SEEING THROUGH ARITHMETIC

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